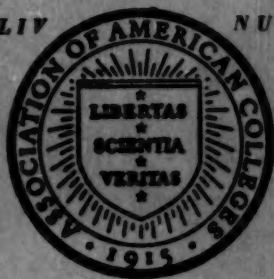

ASSOCIATION OF AMERICAN COLLEGES BULLETIN

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**The Role of Administrators and Trustees:
A Faculty View**

**The Waking Nightmare:
Or How Did I Get into This?**

***Annual Meeting, Kansas City*
6-8 January 1959**

December 1958

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EDITORIAL NOTES

ANGLO-AMERICAN EXCHANGES UNDER THE FULBRIGHT PROGRAM have now been going on for ten years, and they will be continued for ten years more under an agreement recently signed by the two governments. In the first ten years more than 6,600 Britons and Americans have been awarded Fulbright Fellowships for study in each others' countries. The program was originated by a Rhodes Scholar, Senator J. William Fulbright, who knew from personal experience the value of international educational exchange, and is a worthy extension of Cecil Rhodes' ideal. Some thirty countries besides the United Kingdom exchange scholars with the U.S.A. under the Fulbright Program, which deserves its reputation as one of the most successful developments of American foreign policy in the postwar years.

AN INTERESTING EXPERIMENT in instructional economy was inaugurated by Compton College with the simultaneous projection in four classrooms of lectures filmed on the campus by members of the college faculty. The originators of the "Compton Concept," President Paul Martin and Dean Foster Davidoff, report that the necessary equipment can be obtained for about \$25,000 and that a course of 48 lectures can be filmed for less than \$7,500.

AS HOLDERS OF JOHN HAY FELLOWSHIPS, about sixty public high school teachers in 1959-60 and eighty to ninety teachers in 1960-61 will have a year's study in the humanities at five university centers: Chicago, Columbia, Harvard, Northwestern and Yale. In addition, in 1959 and 1960 forty to fifty high school teachers and administrators will participate under the expanded John Hay Fellows Program in each of three summer institutes in the humanities. Applicants for fellowships and for the summer institutes should be not over fifty years of age and should have had at least five years of high school teaching experience, the last two with the school system in which they are presently employed. They should be in schools that are sound academically and are interested in making effective use of good

teachers. Teachers from Arizona, Colorado, Connecticut, the District of Columbia, Georgia, Louisiana, Maryland, Michigan, Missouri, New York (outside metropolitan New York City), North Carolina, Ohio, Pennsylvania (as far east as Williamsport, Harrisburg and York), Texas and Washington are eligible for John Hay Fellowships and for the summer institutes. For information write to Charles R. Keller, Director, John Hay Fellows Program, 9 Rockefeller Plaza, New York 20, N. Y.

"FOREIGN STUDY may soon become an accepted part of an undergraduate's education," says the Institute of International Education in "Foreign Study for U.S. Undergraduates: a Survey of College Programs and Policies." The survey, conducted in June 1957 for the Council on the Junior Year Abroad, provides the first comprehensive list to appear in any one publication of American colleges and universities that encourage their students to carry on some part of their undergraduate studies overseas—with essential details of the programs and policies of the several institutions. It shows that in the academic year 1956-57 no fewer than 365 institutions offered junior year programs, summer programs, individual scholarships or facilities for independent study abroad with credit, and that upwards of 2500 students took advantage of these opportunities. Noting that "there has been little objective evaluation of the educational and personal significance of undergraduate study overseas" and that a number of colleges and universities, "including some of our leading institutions," remain skeptical, the report gives due weight to the difficulties, notably the cost to the student—and to the institution that organizes its own program—and the problem of fitting foreign study into the rigid requirements of the American credit system. Practical advice is given on the establishment of foreign study programs, and the crucial questions that need further investigation are enumerated. All reservations made, however, the Institute concludes that carefully planned and well administered programs can enrich the total educational experience of American undergraduates, improve the understanding of U.S. higher education by other nations and contribute to better relations among peoples. The report is available, on request, from the Institute of International Education, 1 East 67th Street, New York 21, N. Y.

THE NATIONAL TEACHER EXAMINATIONS, prepared and administered annually by Educational Testing Service, will be given at 250 testing centers throughout the United States on Saturday, 7 February 1959. At the one-day testing session a candidate may take the common examinations, which include tests in professional information, general culture, English expression and non-verbal reasoning, and one or two of eleven optional examinations designed to demonstrate mastery of subject matter to be taught. The college which a candidate is attending, or the school system in which he is seeking employment, will advise him whether he should take the National Teacher Examinations and which of the optional examinations to select. A bulletin of information (in which an application is inserted) describing registration procedure and containing sample test questions may be obtained from college officials, school superintendents, or directly from the National Teacher Examinations, Educational Testing Service, 20 Nassau Street, Princeton, New Jersey. Completed applications, accompanied by proper examination fees, will be accepted by the ETS office up to 9 January 1959.

PROCTER & GAMBLE SCHOLARSHIPS will be awarded by 47 privately controlled colleges and universities (nearly all of them members of the Association of American Colleges) to sixty men and women who plan to go to college in the fall of 1959. The scholarship program, now in its fourth year, provides 240 scholarships, a quarter of which are awarded each academic year. Each scholarship covers full tuition plus an allowance for books and supplies and is accompanied by an unrestricted grant of \$600 a year to the college that the student attends. Two thirds of the scholarships are awarded in the field of liberal arts with majors other than science, the remaining third in science or engineering. One sixth of the scholarships are reserved for women who will attend one or other of fifteen women's colleges. This program, which involves an annual expenditure of some \$400,000 in scholarships and grants, is part of a larger educational aid program of nearly \$1,000,000 a year, which includes \$110,000 for graduate fellowships, \$80,000 for special grants to national organizations such as the United Negro College Fund, \$110,000 for the state and regional associations of privately supported

colleges, and unrestricted grants of \$20,000 each to ten of the leading national universities.

"CONTINENTAL CLASSROOM," broadcast five days a week, from 6:30 to 7:00 a.m., by the National Broadcasting Company, is the first college course to be televised from coast to coast. It is intended primarily to provide college instruction in atomic-age physics for high school teachers of science, with the object of improving science teaching in the schools and ultimately ensuring an adequate supply of scientists. Television presentations will be supplemented by periodic tests, reading assignments and other out-of-class activities, and over 300 colleges and universities are expected to accept the course for credit. The American Association of Colleges for Teacher Education, the Ford Foundation and the Fund for the Advancement of Education are partners in the experiment along with NBC, and in addition financial assistance is being furnished by American Telephone and Telegraph Company, International Business Machines Corporation, Pittsburgh Plate Glass Company and United States Steel Corporation.

ROTARY FOUNDATION FELLOWSHIPS for study abroad in the academic year 1958-59 were awarded to 126 graduate students from 35 countries by the Rotary Foundation of Rotary International. Since the program was established in 1947, as a memorial to Paul P. Harris, founder of Rotary, 1,075 men and women from 65 countries have received fellowships for study in 43 countries, with grants totaling \$2,700,000. Fellows are chosen, without regard to race, creed or citizenship, from candidates, between 20 and 29 years old, sponsored by the Rotary clubs of their home towns. They must have a college degree (or be due to receive one in the next academic year), a high scholastic record and a thorough knowledge of the language of the country in which they wish to study. They must be able to make friends easily, have a lively interest in world affairs and show qualities of leadership. Rotary fellowships are unique in that the fellow is, as a matter of course, brought into direct contact with Rotarians and their families wherever he studies, and thus has exceptional opportunities for seeing how the people of the host country live and laying a foundation for increased international understanding.

UNITED STATES NATIONAL STUDENT ASSOCIATION has received a grant of \$88,000 from the Ford Foundation for a four-year renewal of its Foreign Student Leadership Project. The project is a four-year-old enterprise which enables student leaders from Asia, Africa, the Middle East and Latin America to spend a year at American colleges and universities chosen with special reference to the effectiveness of their student government organizations as a model of democratically organized institutions. Sixteen foreign students are currently studying under the program at institutions which include thirteen members of the Association of American Colleges.

EASTMAN KODAK COMPANY is providing grants amounting to some \$250,000 for the current academic year to 61 privately controlled colleges and universities. The grants are distributed in accordance with the number of graduates of each institution who have served with the company for five years.

MERSHON NATIONAL SCHOLARSHIPS AND FELLOWSHIPS have been established by the Ohio State University under the bequest of an alumnus, Colonel Ralph Davenport Mershon, to promote academic study and research in fields related to national security. Fifteen undergraduate scholarships, ten graduate fellowships and three post-doctoral fellowships will be awarded to students of such disciplines as history, political science, economics, sociology, business administration, physics, chemistry, engineering, law and medicine. All three types of award are for nine-month periods of study. The undergraduate scholarships carry stipends of \$1500, the graduate fellowships \$3000 and the post-doctoral fellowships \$7500. The first two types of award are restricted to citizens of the U.S.A.; for post-doctoral fellowships, preference is given to American citizens. Application forms for scholarships may be obtained from the Director of Undergraduate Scholarships, The Ohio State University, Columbus 10, Ohio, and for fellowships from the Dean of the Graduate School. Applications must be received by the same officers not later than 15 February in order to be considered for the next academic year.

THE FIFTH ANNUAL INSTITUTE ON COLLEGE AND UNIVERSITY ADMINISTRATION will be held at the Uni-

versity of Michigan from 22 through 26 June 1959. The institute will be followed by a two-week Workshop on the Community College, 29 June to 10 July. The program of the institute will focus on five major problems of higher education: faculty personnel policies, philosophical foundations of the curriculum, college-community relationships, student personnel problems and the theory and practice of administration. The institute will be conducted by the faculty of the Center for the Study of Higher Education, including Professors John S. Brubacher, M. M. Chambers, Jesse P. Bogue, James M. Davis and Algo D. Henderson. Other resource leaders of national recognition will participate. Dr. Jesse Bogue will conduct the Workshop on the Community College. The institute for 1958 enrolled 57 college and university administrators, representing 54 institutions in 21 states and 2 foreign countries. Information about the institute or the workshop for 1959 may be obtained from the Director, Algo D. Henderson, University of Michigan, Ann Arbor, Michigan.

THE CENTER FOR THE STUDY OF HIGHER EDUCATION has also announced that for the academic year 1959-60, under a grant from the Carnegie Corporation of New York, it will again have available a number of fellowships in higher education. Five persons who have completed their regular academic training, with the doctor's degree or its equivalent, and have shown outstanding promise of educational leadership, will be appointed Michigan Fellows in College Administration, with stipends varying with individual needs up to a maximum of \$8000. It is expected that by the end of the fellowship year, the fellow will be prepared, through increased knowledge of administrative theory and practice and improved understanding of the philosophy of higher education, for larger responsibilities in college or university administration. A few pre-doctoral fellowships will also be available, with stipends ranging from \$500 to \$3000, to assist students of high merit who have had at least a year of graduate study to pursue their preparation for a doctor's degree and to take part in the research program of the center. Applicants for either type of fellowship must be under forty years of age and must submit their applications to the Director of the Center before 1 February 1959.

REPRINTS OF PAUL H. DAVIS' ARTICLE in the October issue of the *Bulletin*, which have been generously furnished for the benefit of member colleges by an anonymous donor, are in heavy demand but can still be had in limited numbers. We regret that owing to an unfortunate arrangement of footnotes on page 397 it is not made quite clear that the reprints offered are only of Mr. Davis' own article and not of the other articles which he cites.

THE PROGRAM OF THE ANNUAL MEETING FOR 1959 has already been circulated. Incidentally, "The Pursuit of Excellence" was chosen by the Board of Directors as the theme of the Meeting some months before it achieved wide currency as the title of a report on American education published by the Rockefeller Brothers Fund in the America at Mid-Century Series. We may be gratified that our choice of theme happens to coincide with the title of this admirable report. Meanwhile, the housing bureau established for us by the Convention and Visitors Bureau of the Kansas City Chamber of Commerce has been doing a brisk business in room reservations. In fact, all the rooms set aside for the Annual Meeting by the three hotels with which our original arrangements were made have already been taken up. The housing bureau is doing its best to secure space in other nearby hotels, but anybody who plans to attend the meeting and has not yet made reservations should write at once to Association of American Colleges Housing Bureau, Chamber of Commerce of Kansas City, 1030 Baltimore Street, Kansas City 5, Missouri. The Annual Meeting proper will begin as usual with the Annual Dinner on the Tuesday evening and end about noon on Thursday, but delegates who are interested in attending meetings of standing commissions should note that most of these meetings will take place on Monday 5 January. The official dates of the Meeting are Tuesday the 6th through Thursday the 8th.

THE ROLE OF ADMINISTRATORS AND TRUSTEES: A FACULTY VIEW

ARTHUR J. DIBDEN

ASSISTANT PROFESSOR OF PHILOSOPHY, KNOX COLLEGE

IN an essay on "Faculty People and College Power" I preached a little sermon on the rationale for, and some possible expressions of, faculty participation in the power structure of a college. This present essay is an "extension of remarks" designed to continue the task of definition by a faculty member of the adult governance of an institution. However central, a faculty perspective is not the only word about a college. It is anointing the obvious to suggest that the perspectives of administrators, trustees, students, parents and an immediate or general public are also relevant and influential. To jump out of one's professional or social skin is difficult enough for a creative artist, however, and I am further burdened by being a faculty member teaching in a department of philosophy. But in the hope that these introductory confessions have somewhat "cleared the deck for action," I shall start shooting my random arrows by way of an old formula of questions and answers. The context assumed, by the way, is that of a small liberal arts college. And while I would not disguise the fact that I write as a college teacher, it is my expectation that even if I should become an administrator there would be little need of change in the following reflections, except perhaps by chastening the simplicity of the idealism or by adding much complexity of detail.

The first question is: *what should be the role of administrators in regard to college policy and faculty relation?*

This question should be asked by college teachers partly as an expression of their professional commitment to the pursuit of understanding and as a venture in scholarly imagination and partly to appraise all relevant aspects of a situation which (in a sense) they may be requesting for themselves should they ask for more power in college affairs.

The primary task of a college administrator may be defined as attendance to the care and feeding of his college as a whole. By "administrator" I refer to officials like presidents and deans whose functions and positions are central, comprehensive and

decisive in college affairs. They are the ones to whom others report. Those with special jobs like public relations, buildings and grounds, alumni contacts and bookkeeping can be listed on the administrative staff; they are under the administrators and supplemental to the faculty; and if they do not report to the chief administrator, something is wrong with the system. It is not they but the chief administrators who concern me here.

The head administrator himself reports to the trustees. Of this dimension of college power I shall speak later. But he also reports (or should) to the faculty. In fact a president of a college is in the enviable and vulnerable position of being at the center of college life—open to and influential upon trustees, faculty, students, alumni, parents and the general public.¹ If he has enough power, freedom, taste, imagination, energy, educational wisdom and political sense, he can accomplish much—and could also apply for the position of Superman. Yet he is also hampered by his very position, being the target for all kinds of appeals, complaints, slogans, panaceas, pressures and frustrations. Thus it is all the more important that he and fellow administrators have a solid and rational vision of what is required for the care and feeding of a college.

The problems of "feeding" are usually specific, and consequently they may receive more attention than they merit. At least there is something definite in recruiting students, raising money, planning for new buildings, checking on food handling and dormitory arrangements, increasing faculty salaries, surveying classroom space, fixing the college calendar, securing speakers, seeing that departments get mechanical adjuncts like "visual aids" or typewriters, arranging for publicity and soothing anxious parents and troubled teachers. The only reason an administrator need not echo the complaints of teachers about "so much committee work" is that he may realize he is getting paid for just that kind of activity, whereas the teacher usually assumes that his salary is for teaching and research. The general importance of all these facets of "feeding" is that physical necessities and resources and organization are provided and

¹ For a listing of the many "publics" a president might confront, see Carter Davidson, "Our Unpublicized Publics," *Association of American Colleges Bulletin*, Vol. XLIII, March 1957.

promoted. Order is introduced into the interlocking relations of teachers and students.

The problems of "care" are more elusive but in the areas of human relations and quality education are more essential. To care for the college as a whole requires those aspects of self-discipline, concentration, objectivity, humility, loss of narcissism, rational vision, courage and faith which Erich Fromm discusses in his excellent little book, "The Art of Loving." The fact of having recently read the book partially explains my present use of its theme as illustration, but perhaps the implication that "love" should be the central principle of administration is too strong for college people, even when the term is interpreted in the sense of productive giving that Fromm stresses and when it may also include hard decisions of denial or dismissal. But surely the ingredients Fromm mentions *are* basic and relevant: care, respect, responsibility and knowledge. These qualities should ideally be expressed by each person to all. And an administrator, ideally, would exhibit them toward his many publics. It is my hope that he would especially incorporate them in dealings with a faculty.

This is no plea for sentimentality or weakness. Administrators must be prepared at times to make decisions which to those involved may seem to be just rather than merciful, or harsh rather than harmonious. But it is a plea for a commitment and courage which sees a college as an educational institution and not as an ineffective business, or a prize showcase for "my faculty" or "my students," or a happy echo of either church or state, or (worst of all perhaps) an equivalent of Rotarianism and a high school cheering section. It is a plea for depth and breadth and height in self-understanding and in the qualities of care, respect, responsibility, knowledge, imagination. Such a listing of epithets may seem merely another plug for perfection, but I would prefer it be taken as the ingredients of an emerging vision of possibilities.

At least until mechanical devices diminish all human contacts, college education (understood as the actualizing of potentials in students and teachers in an academic setting) is centered around the teachers and the taught. And I have already indicated in comments on the "feeding" of the college my conviction that one basic responsibility of administrators is to provide

the setting and the opportunities for exchange between the teachers and the taught (two categories, by the way, which should *not* be simply identified with faculty members and students). And then, in a sense, the administrator should retire from the scene. But of course he remains. Like the common cold, the administrator is always with us. It is at this point that he should minimize his organization and maximize his caring.

For instance, some faculty members would greatly appreciate receiving from administrators a just appraisal of the nature of teaching and perhaps even of their own teaching. But the mere fact that an administrator has "risen from the ranks" (or fallen) does not indicate that he ever fully understood or that he now remembers. Even teachers gather stereotypes about themselves. By his contacts and his concerns an administrator should be wiser about the role of teaching than many a teacher. But how many administrators are respected for such an insight? His own self-knowledge could be much increased and some of the tensions between administrators and faculty might be lessened if an administrator carefully evaluated his image of the teacher to see whether it was an amalgam of office conferences and his power to hire and fire or whether it was a deep historical and normative picture of the teacher's role as culture communicator, adventurer in and midwife of ideas, human (but not mechanical) aid to learning, or stimulator of movements in students and also in colleagues toward authentic selfhood.

Yet how frequently we hear from teachers a feeling that administrators seem sometimes to think of faculty members as hired hands, as a lazy labor pool which ought to work harder, as disturbers of the peace in students or society, as impractical idealists who are either constantly repeating pet panaceas or are griping because the dreams they have been living on for years have not materialized. These labels may have a basis in fact. But that is not the only problem. Either by habit or by deference to the "human relations" technique of praise, an administrator may speak very highly in public of the role of teaching. There may even be a few (probably new) administrators who consider teachers as a special priesthood of the academic mysteries. Both the low and the high images are

wrong—though each may have a campus embodiment. If the first duty of an administrator is to be a mature human being, if the second is to have a sound grasp of goals and problems and methods relevant to his situation, surely the third is to have intelligent insight into the roles of teachers (and students also), seeing clearly both the actualities and the norms and never piously sacrificing the one to the other.

Another area of concern is the image an administrator has of the way "to run a college." A college is a unique institution. An administrator of a college is an organizer and chairman whose task is to minister unto the productive life, the creative and critical work, or his distinctive little society. But too often the drives and standards he seeks to apply seem akin to those of American business. This is an error. Not only does it reveal a lack of Machiavellian intelligence in dealing with the images which teachers have of themselves and of their relation to American society, but it also goes counter to the goals and methods appropriate to the questing mind and free spirit of the true educational adventure. A more appropriate image than that of the manager would be that of the gardener, who may plant and weed and fertilize but who basically lets life do its own work.

In addition to hoping that an administrator will understand what goes on in a teacher and what goes on in the educative process, a faculty member probably also hopes that an administrator will also serve as a good example of what an educated man does in a position of responsibility and power. The administrator commands a possible range of contacts which few faculty members may possess. (This is one reason why he should have a hand in faculty appointments.) He and his actions seriously affect the lives of people and the climate of opinion and the operating structures of a college. What does he reveal of his deepest commitments to education? It may not be fair to demand of an administrator more than a faculty member demands of himself. And perhaps the plea being made here for a combination of organizing but not managing, of presiding but not being paternalistic, of real involvement in the life of the college and yet a certain detachment from it, of delight in theory and also effectiveness in practice, of the art of leadership and the art of listening, are typical faculty naïveté in view of the nature of human nature and of the temptations of college power. Per-

haps no administrator who can hire and fire a teacher will ever be able to consider himself a minister to that teacher. Unless he constantly resists the mores of his vocation, he may succumb to the error of assuming he has a more significant *educational* role than the humblest teacher.

Perhaps the pressure of time, the burden of responsibility, the growing contacts with managers and manipulators and millionaires outside college walls, and the emotional tensions of dealing with internal crises may gradually ease him away from the free meditation, the spontaneous interplay with person and idea, the creative expression via lecture or discussion or poems or essays or books, which mark the significant dialogue of the life of education. And yet one can hope that he may still care enough for that life to exhibit in his work and relationships some traits of the soundly educated man, whether it be in a sense of craftsmanship in making a good speech, or wisdom about human nature, or excited response to a new book, or intelligence in giving form to areas and relations of his domain.

Let an administrator be efficient in matters of "feeding," but if he be deficient as a person in the arts of "care" and consequently insufficient in the administering of "care," then he is likely to do higher education a disservice both by his example and his errors. No person is ever completely integrated. Few are internally independent. None who responded to life and the world can escape the impact of environment. Perhaps no administrator can be much better than his college. No doubt we teachers should be wary of casting too many stones. Yet if teachers do not appraise their images of themselves, their image of the administrator and the administrator's image of himself, they will justify the criticism that they never know how to apply their wisdom to their immediate situation. And if they do not hold up standards as high for an administrator as they should for themselves, the whole working staff of a college is in poor shape to respond to the sharpened challenges of contemporary education.

The second question is: *what is the role of the trustees of a college?*

It would be rewarding if every board of trustees would now and then engage in that type of re-examination of goals and procedures which frequently characterizes a faculty's existence.

But apparently not many have exhibited the kind of effort, research, intelligence and concern found in a recent document entitled "The Role of the Trustees of Columbia University." Some of my ideas have been influenced by that example of scrutiny.

The duty of the trustees of a private college is to serve as legal custodians of the corporate nature of the institution. Their responsibilities should include the preservation, protection and maturation of the college. They should properly seek by all legitimate means to enhance its reputation, its intellectual and technical excellences, its physical efficiency and esthetic appeal and its productive contributions to teaching and research—and through those activities to individuals and society. There is a general assumption that it is a good idea for trustees to raise money and to give pertinent advice on financial problems and to hire presidents.² But I would agree with one trustee with whom I have discussed these issues that their basic function is to further education.

These duties may appear obvious and innocent. But the special significance of a board of trustees resides in its role as the final arbiter of power. In principle they hire and fire not only the faculty members but also the administrators; they determine college policy; they can decide on all its basic or trivial issues. Such a situation is almost unique. It seems hardly paralleled even in the board of a big corporation, for presumably that board is ultimately responsible to stockholders. Nor are there simple parallels in political domains. Some similarity may be found in a supreme court, but even that body does not have the self-perpetuating features and the legislative and administrative powers theoretically bound up in a board of trustees. The closest analogy I can now think of is that of a primitive self-perpetuating oligarchy.

Thus there exists in our American traditions a legal gulf between trustees and faculty. (There are undoubtedly special problems in the relationships of trustees and administrators, but on the whole I shall emphasize here the relationship with a faculty.) As the well-known trustee Laird Bell once remarked, the

² This traditional conception of the trustee as employer-financier is indicated in Kenneth F. Burgess, "The Trustee Function in Today's Universities and Colleges," *Association of American Colleges Bulletin*, Vol. XLIV, October 1958. For a note on the importance of good trustees, see Paul Davis, "More to Be Desired Are They Than Gold. . .," in the same issue.

arrangement should not work but it usually does. Perhaps it works partly because of mutual separation, partly because there is enough good will, discipline, intelligence and common dedication to the college in both groups, partly because of responsible presidents. But I would also guess that it works largely because of tradition. It would seem to be not only a recognition of the efficiency of a division of labor but also of the traditions of relative independence in college life which persuades a board of trustees to delegate certain areas of decision to administrators and to a faculty. And not to be overlooked in these reasons is the nature of teaching itself. Give a good teacher his class and classroom, a library and bookstore, some rules on how to treat absentees and when to turn in grades, and he could go on his own way with his students and books, with scarcely a thought about trustees or even a president. (Of course it is comforting to know that there is someone around, raising that necessary money.) To be sure, when a special issue arises like athletic policy or tenure or teacher's oaths or a new class requirement, a teacher wants recourse to committees, faculty meetings and the administration. And at such times, especially when preferences are blocked or diverted, perhaps by unknown directive, he may become keenly aware that sitting above the whole heap is the board of trustees—the final power.

There they are, an oligarchy entrenched by self-perpetuation. Since many a faculty member has picked up along with his other youthful idealisms a commitment to a democratic credo, he may suddenly feel trapped in a rather odd kind of world. It is not even theoretically possible for him as it would be in the business world to try to buy up enough shares of the corporation to place his own representatives on the board of directors. His only resources are the trustees' own delegation of rights, the understanding and support of administrators (who can themselves be fired), and the arts of persuasion. Since both trustees and faculty members are heirs of democratic traditions, there may be additional resources in the laws and customs of such a heritage. Now it is not altogether bad for a teacher whose working credo should be marked more by persuasion than coercion, more by the presentation of vision than by the manipulation of power, to be placed in a situation in which he can uphold his dignity only by reliance on principle and persuasion. Nonetheless, realism (to which a teacher also pays some deference) indicates that his

dignity could be better maintained if he had more recourse to actual power and were not, theoretically speaking, under the legal thumb of absentee landlords.

This description of trustee duties and faculty dilemmas is not intended as a plea for immediate revolution. I would personally favor some acute and dramatic rehearsals of possible consequences before advocating blind knocking on closed doors. Academic traditions affect and bind both groups, as the Columbia University report indicates. And many a trustee realizes that his function is to reign but not rule. Except in cases of special irritation or crisis, many faculty people probably feel no deep and radical desire for a change. In many instances, the arrangements do work at present. Yet I repeat that upon close examination the situation discloses odd features. A faculty person, who is also a member of a democratically interpreted society, has in his role under the trustees not even the equivalent power of either a citizen who can vote, a union member who can legitimately organize group forces, or a shareholder who can demand an accounting or a re-alignment of personnel.

Given this situation, it is a fortunate institution in which trustees understand that their chief role is to advance education and that the faculty's role is to practice education, and in which both groups by virtue of mutual understanding, self-discipline and a common dedication to their college can stand scrutiny and can promote a community of sound values.

I shall conclude with the reminder that this is an essay in interpretation of the roles of the other fellow. The particular problems which an administrator or trustee of a particular college must confront I could hardly discuss in detail, even if brashness would overcome modesty. But a faculty member should not limit his educational vision to his department or his field of scholarship. Educational statesmanship suggests the appropriateness of exercising a teacher's information and imagination in attempting to suggest standards not only for his own role but also for that of administrator and trustee. And then, if either administrator or trustee would try to write a responsible essay on "The Role of the Faculty," present to all involved would be public statements permitting increased cooperation in the quest for advisable changes and deepened understanding about mutual adjustments to necessary conditions.

THE SPUTNIKS AND AMERICAN EDUCATION

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A YEAR has now passed since the first of the Russian Sputniks was sent aloft. Our memories are short, and I wish I could re-create the sense of excitement, awe, wonder and deep concern that so many of us felt last fall. The man in the street, you and I, everyone was suddenly and seriously concerned about the national state of affairs in science and in education.

For a few years before the Sputniks, more and more thoughtful laymen had been asking serious questions about education, but the eruption of criticism caused by the first and second Sputniks surpassed all previous interest. What had happened while this giant of America slept? For weeks and even for months thereafter, as I traveled about the country, I could scarcely pick up a local newspaper or a regional or national magazine without finding one or more questioning and probing articles on American education. During the late fall and early winter one might have guessed that this startling, concentrated, focused attention represented a real determination to ask the right questions and find the right answers, in an unprecedented and nearly universal concern for improving American science and American education. There was even some suggestion that we as a people might make some *sacrifices* if necessary to guarantee high quality in this national effort.

Such an estimate of the situation would have been, not 100 per cent wrong, but at least badly out of line. This country's scientists managed to send up a satellite—as someone has put it, a grapefruit—and almost immediately national relief combined with our national optimism to revive our national feeling that we are after all the country with the best engineers, scientists, brainpower, education and wealth. It would all come right in the end. Moreover, wasn't Congress probably going to vote a lot of money and that would cure everything that was wrong?

NOTE: Address given before Northwest Electric Light and Power Association meeting at Sun Valley, Idaho, 19 September 1958.

I am told in Washington that during the winter the volume of Congressional mail on the subject of education was a veritable deluge. We had to have a crash program, and so on. By early summer such mail was a tiny trickle. Recession news, and more recently a successful revolution in Iraq, the marines in Lebanon, the British in Jordan, Khrushchev's notes to Eisenhower, our uncertainties off the China Coast have claimed our attention. These are probably the most important topics in the world today and tomorrow. But the day after tomorrow, assuming we do not blow each other to bits, there will be other equally important items, each in itself a short-range matter but each also inter-related with long-range questions—questions that, however hard you wish, will not dry up and blow away; questions that crash programs will not solve; questions that cannot be answered simply by sending 5,000 marines into Beirut, questions that we seem unable to concentrate upon for more than a few days or weeks, but which hold the meaning and shape of the future for your children and mine.

Some of these questions must deal with education. I have been greatly disappointed by the sudden loss of interest in this topic over the last few months, but a wide current of interest is still flowing across the land. Why did it arise? Why is it continuing? At least three reasons come quickly to mind.

The first stems broadly from the "cold war," or more narrowly from the Russians' success in launching into orbit Sputniks I and II. The dramatic nature of these last events was necessary to startle the American public out of complacency. In war and in peace, the United States has had a habit of success, and this has bred in many quarters an assumption that we are somehow, and shall continue to be, "better" than other countries in any area of effort with which we are willing to bother. Collectively we have an unusual birthright of liberty, freedom and pioneering achievement, but it is nonsense to assume that Americans are endowed at birth with attributes of superiority in intelligence, imagination, perseverance, initiative and creativity among the peoples of the world.

The drama of the Sputniks has brought home to the public some underlying facts about Russian education and the Russian system, and these have rightly brought us up short. Americans for years have said in countless ways that to them "education

is important," and there is no question that it has been a great force in developing this country physically and morally. Yet now we find that the importance we attach to education, to science, to intellectual achievement—as judged not by our words and our lip service but by our actions—falls far below the dedication and commitment of the Russians. What are some of the contrasting facts?

Consider the economic rewards for the teacher and the research scientist. In Russia they rank near the top of the scale. In America there has been a continuing decline in the real purchasing power of the teacher's income, and the salesman and manager have for years been outstripping the scientist.

Consider the guarantees that the able and highly motivated student will proceed through higher education to the limit of his ability. In Russia there are scholarships and maintenance—one might almost say salaries—for all top students; there is a virtual certainty of material success, as well as the intangible rewards of high social status, for young men and women of ability. In America a high proportion of our ablest students stop formal education with graduation from high school: the two primary reasons are financial problems and motivation. We have not convinced all able students, and we have not convinced their parents, of the long-range importance for them of higher education. We have not convinced the public that such a loss of ability is an indefensible waste for our society, to the point where adequate scholarships are indeed available.

Think of facilities for education and for basic research. Here the Russians have had an enormous job of catching up to do. Particularly in science, there is impressive evidence that they have been doing so in a remarkably short time.

We are now talking seriously about what needs to be done, what indeed has to be done. Some early hysteria is being replaced by a calmer determination and a realization that changes made overnight may be superficial. There remains, however, cause for concern lest we drift back into complacency as the government manages to put more of our own satellites into orbit and our atomic submarines under the poles.

A second reason for the upsurge of public concern for education may be thought of as statistical. During this century there has been a major change in the demand for high school and col-

lege education. In 1900 total college enrolments equaled about 4 per cent of the number of young people between 18 and 21 years of age. Now that figure is up to 33 per cent or perhaps a little higher. The proportion of the age group finishing high school has, I believe, changed even more radically in the same period. Our technology, marketing, transportation, communications, have become increasingly complex. These "natural" trends have combined with or resulted in legal steps, especially child labor laws and compulsory school attendance laws, to change in huge degree the quantitative job expected of the schools and colleges.

In the postwar period the public has realized increasingly the effects of another trend. Not only has the proportion of young men and women staying longer in education increased, but the sheer numbers of students to be educated have risen steeply. The national birth rate in the depression years of the 'thirties was relatively low. It rose sharply during the years of World War II and it has continued on a high level. This inundation of students has for some few years been affecting our elementary schools; it is now well into the high schools; the next five years will witness a great swelling at the level of the colleges. Remembering that children born this year will not be entering college until 1976 or thereabouts, one can see ahead a long period when we must assume a greatly increased job to be done in education.

This situation is creating a huge need for facilities and for teachers in our schools. It is having the same effect for our colleges and universities, although not quite so automatically. The colleges, both public and private, faced with potential excesses of applicants, have the opportunity to raise the qualitative standards not only of admission but of graduation. There can be, and there is developing, a greater insistence on high and serious achievement in school work. This should have its effects in the elementary schools and in the high schools. Some of these effects we are seeing already.

A third reason for heightened public attention to the problems of education has to do with philosophy and content. Because of the enrolment trends I have mentioned, the city high school in the last thirty years has been adopted to meet new and different purposes. The "academy" of the nineteenth century,

attended chiefly by students—mostly boys—who expected to enter one of a small list of professions, bears little resemblance at all to the large comprehensive high school of today, serving a multiplicity of purposes. For some students the modern high school provides a terminal experience in formally organized education; for some a very general, heterogeneous set of courses; for some a technical and vocational education; for some chiefly an athletic experience; for some chiefly a round of extracurricular and social activities; for others, finally, a preparation for college.

This change in size and mission has been accompanied by the development of two points of view that are less easy to describe both simply and fairly.

One has been a misconception of democracy. It is the idea that every child—regardless of his ability, interests and goals—should be given the same educational opportunity, no more and no less. This is to me simply nonsense. A truer definition of a democratic educational system would state that our society should provide the maximum opportunities that each individual student is able to use properly and to benefit from. The difference between these two views is enormous. The one notion describes education in terms of an undifferentiated mass, the other in terms of individuals and the differences among them. There has fortunately been a swing—although it is not universal—from the one point of view toward the other. Education can be thought of significantly only in terms of learning, and significant learning can be done—whatever the methods inducing it—only by the individual. What our son's and daughter's classes have performed together may leave them all with fond memories of pleasant days. What he or she is going to take away from high school, however, is that which each of them has made his own, what knowledge has been absorbed, what understandings have been attained.

The second philosophy has been given many names, but its general tenor is to reduce all subject matter that could be or is being studied in the schools to one undifferentiated mass. No one kind of content in formal studies is regarded as more useful, more preparatory for later study and learning, more valuable in one's development than any other. In various places and to different degrees this has been combined with the notion that all should be hinged on the interests of the child, that he should

be the determiner of what will be taught and what will be learned. Anarchy in the curriculum and in the conduct of education has not been the actual result in many situations, but the tendency has been in that direction.

Now we are, I think hopefully, seeing a reversal of trend. The public is demanding more insistently that some basic tools of the mind are important for every student and that these must not be neglected. There is a recognition that the school can probably not be all things to all students, that some priorities must be established. To be more specific the demand is for greater emphasis on some familiar items. Are you competent in the understanding and use of the English language, and are you familiar with some, at least, of the great imaginative literature of your own tongue? Do you have a grasp of the historical forces that have operated in your own country and in this rapidly shrinking world? Do you have adequate concepts of number, quantity, relationships and measurements, and do you have competence in calculation and manipulation? Have you grasped some understanding of the scientific method and of the physical, chemical, biological nature of man and matter?

Perhaps less universally as an immediate concern, have you become at all competent in speaking, understanding, writing, reading a language other than your own? We are finally beginning to understand that Americans are less literate, less competent, in the languages of other nations than any other nationality.

I may have painted a gloomy picture, but there are many rays of hope. I might use for illustration just one small institution, Reed College. Over the past few years our faculty members have been involved in the following programs and events, selected from many others that might serve equally as examples:

1. Cooperation with Portland high schools in developing a special program for gifted students, which is now being widely described and frequently emulated;
2. Conduct of special evening and summer seminars for high school teachers engaged in the program for gifted students;
3. Other special seminars in mathematics and the sciences for a more widely selected group of high school teachers;
4. National meetings of chemists on our campus, from which in part at least has sprung the determination of the

A.C.S. to rebuild the high school chemistry program;

5. Acquisition of a pickle-barrel atomic reactor for research by faculty members and senior students. (The reactor is producing some radioactive isotopes for medical research and use in Portland's hospitals, and it is a matter of at least passing interest that a student assembled the reactor as his senior thesis project);

6. An experimental course in introductory college chemistry—giving in one semester to a group of well-prepared freshmen what usually takes a full year (and a stiff one);

7. One of the four special institutes held in the country to teach high school teachers of physics an entirely new, updated and upgraded high school physics curriculum;

8. Broad experimentation with the teaching of college mathematics—rearrangement of sequence and introduction of new topics, so that our freshmen now work with some mathematical principles that have usually been reserved for graduate schools;

9. An intensive *Deutsche Sommerschule*, in which 28 students from as far away as Philadelphia, New York, Minnesota and Kansas, as well as from coastal states, lived, studied, ate together for seven weeks, speaking, reading, writing German constantly.

But we still have a long road to travel.

A sane and balanced analysis of Russian education and of our situation in Canada and the United States is given by President MacKenzie of the University of British Columbia in his annual report for 1956-57.

What, then, is the truth about Soviet education? And what should we learn from it? It is generally agreed that the Russian High School graduate knows more mathematics, physics, chemistry, biology, more about the literature, history and culture of his own society, and far more of foreign languages than does a graduate of our high schools. Moreover, he will know more about more subjects since he is expected to carry all subjects through high school and not begin to specialize till university. The reasons for this superiority are not in any way mysterious. On the contrary, they are so brutally simple that I can only explain anyone's failure to grasp them by assuming that he does not want to grasp them, that he will not face their implications. Essentially the Russian system differs from ours in four ways:

1. Soviet Russia has put a far greater proportion of its economy into education than we have.

2. In the Soviet Union success in education is rewarded very well.
3. Education is respected throughout Soviet society.
4. The Soviet attitude, or at least policy, toward hard work differs from our own.

It is as simple as that. If we look for the immediate causes of the difference between Russian students and our own, we find them in teacher-pupil ratios, in the number of hours teachers are expected to teach, and in the amount of hard work that the students are expected to do and must do. The Soviet Union has persistently lowered the teacher-pupil ratio in its schools, so that where it was 33:1 in 1927-28, it is 17:1 in 1955-56. In British Columbia, it is now more than 30:1 and in the USA it is 26.9:1. The American report does not give the teaching load in Russian schools, but a recent press report maintained that teachers in Soviet secondary schools spend only 18 hours a week actually teaching. The rest of their time they are expected—and able—to spend on preparation, on marking, on helping individual students and on keeping up with new developments in their subjects. Our secondary school teachers frequently teach 30 hours a week and are expected to supervise many extra-curricular activities as well.

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"What can we learn from the Soviet Union about education? Primarily, I think, the importance they attach to it, and the amount they are willing to pay for it. We cannot import their system as it is. Schools must be indigenous. For better or worse, they reflect the society of which they are a part. If we do decide that we want to change our system we will have to do it by changing our society, not by trying to transplant a foreign system, torn from its social context. And if we do want a change, I suggest that we begin by considering what we think education is worth, what, in other words, we are prepared to pay for it, and what respect we are prepared to accord it."

Along with President MacKenzie, I doubt that we are going to learn very many lessons directly from Russian practices, methods or curricula. What I think we must learn—not from them, nor simply to compete with them, nor for the sake of international power with the same motivation that drives them on—is to value what education has meant in the growth of this

country and the codes and creeds we live by, and what education can and will mean in the future. Our task is "to produce men and women who know how to think, and knowing how, do it, and who having done it, will have the courage and the responsibility to voice their opinions. . . . Our program must aim at quality—the maximum qualitative and diversified use of our limited quantity (of manpower) on all levels of potential ability."¹

This task we have not been doing—even as well as we could. The job ahead is enormous, and we are ill prepared for it after thirty years of depression, war and inflation. We have salary scales in our colleges that *repel* young men and women of high ability from entering the teaching profession. "Deferred maintenance, corroded pipes, inadequate lighting, obsolete laboratories and equipment"² represent a staggering hidden deficit behind the published financial report of almost every university or college in the country. In the unending struggle to make ends meet we are constantly subordinating "academic decisions to financial decisions." The president of the University of Rochester, in a recent article, used four biting but all too accurate sentences: "Historians may one day conclude that the leaders of education in this generation have had more brilliant ideas on deficits and salaries than on education itself. Society is the loser because most university presidents have been depressed to the level where they act like assistants to their own business managers. . . . Ambitious young minds shy away from academic employment. It is already evident that we are moving closer to the absurd position of turning first-rate young minds over to the teaching of an unhealthy proportion of second-rate minds."³

In the long run this threatened deficit of talent in our academic halls is a perilous risk for all of us. It will not be met and overcome by economic solutions alone, but if there is not an adequate economic buttressing of our institutions, it cannot be met and overcome at all.

I am not one of those who equate private education with free enterprise in every sense. The graduates of our tax-supported institutions are as capable of understanding the historic principles of our society as the graduates of other institutions. But I

¹ Harry D. Gideonse, *Educational Record*, July 1958.

² C. W. de Kiewiet, *Educational Record*, July 1958.

³ de Kiewiet, *op. cit.*

do believe that in the *diversity* of higher education we shall continue to realize our maximum strength. To preserve and enhance that diversity, the job that must be done for and within our independently financed institutions is enormous. What broad solutions are possible?

We can, and probably will have to, continue raising tuition rates. But without massive increases in scholarship funds, we can by this method quickly price ourselves out of the market for a desirable cross section of young ability. Potential excellence is found at all levels of our society. Increasing both tuitions and scholarships, however, as the only wise and humane thing to do, is a treadmill operation.

Beyond that, there are just four broad solutions for preserving anything like the quality that we now have, let alone up-grading that level of quality. The first two are most dubious in qualitative terms.

1. Teach the same number of students with a smaller number of teachers.
2. Teach larger numbers of students with the present number of teachers.
3. Receive a sharply increased amount of individual and corporate support (which looks as if it will be too little and may already be too late).
4. Receive new and sharply increased government support of the right kind, namely for faculties and facilities.

Corporate contributions toward higher education are a relatively new thing. As this year's chairman of the Oregon Colleges Foundation, I am pleased by the growth of corporate support and encouraged by the more open-minded attitudes of corporate executives. Short-range and narrow attitudes that always expect an immediate *quid pro quo* from any gift are still present, but are far more rare than they used to be.

Nevertheless, the movement is proceeding slowly in relation to the urgency of the need. Very few companies, indeed almost no company, in the United States has supported higher education to the maximum extent encouraged by our tax laws. The National Industrial Conference Board has studied the charitable habits of 180 major American business concerns for 1955. They made gifts of \$38,300,000, a large-sounding sum. But only 31.2 per cent went to educational institutions, and their total giving

averaged just 0.7 per cent of income before taxes. Turning it around another way, President Griswold of Yale has reported that "in 1955-56 aggregate corporate contributions to higher education amounted to only 3 per cent of the costs of higher education."

Since corporations are not yet making contributions at the higher levels encouraged by tax laws, and since the same generalization is broadly true of individuals in the higher tax brackets, with respect to both lifetime gifts and bequests, it is very hard to escape the conclusion that any and all massive and timely solutions must come through government action. I would prefer other methods, but I am not willing to turn down government assistance and take the large risks of waiting and delay. Neither the able teacher nor the able student is produced overnight: without either, no education can truly prosper or contribute, over the long run, to the society in which our children and grandchildren must live out their lives.

SHOTS IN THE INTELLECT

GEORGE D. LOVELL

PROFESSOR OF PSYCHOLOGY, WABASH COLLEGE

LIBERAL education is not new. Adult education is not new. Executive development is not new. Their combination has some claim to novelty. Liberal arts for executives is the topic of this paper. Wabash College's Personal Development Program has its focus substantively in the liberal arts and, in terms of its clients, in executives and executives-to-be. While PDP will be referred to in this paper, my remarks are not limited to our own program. Rather they are designed to examine the movement of which PDP is a part and to consider some of the implications for colleges offering such a program.

In 1953 the now famous Institute of Humanistic Studies, better known as the Bell Program because of the sponsorship of the Bell Telephone System of A. T. & T., was organized at the University of Pennsylvania. By 1957 enough liberal arts programs for management had been launched that a conference was held to discuss their objectives. This meeting was sponsored by the Center for the Study of Liberal Education for Adults and called a "Seminar on Liberal Education for Executives."

The Center's purposes are defined as follows:

1. To provide aid and leadership to the forces that can develop the evening college movement into a more effective instrument for the liberal education of adults.
2. To encourage for adults the development of a wide range of university-level educative experiences which do more than parallel regular degree or credit programs and which are planned on the basis of the distinctive interests, experiences and abilities of adults.

These two purposes clearly reflect the old and the new in adult education. The first refers to the standard evening college programs, with the Center's interest in *liberal* education in these programs. This in itself is significant—the emphasis on liberal rather than practical education in the evening college curricula. The second purpose however interests me more—"... university-level educative experiences which do more than parallel regular degree or credit programs. . . ."

This second objective recognizes the vitality of a new movement to provide liberally educative experiences for adults not enrolled in college, in a format different from the traditional college course. Liberal arts colleges should be aware of this trend and be prepared to say what role, if any, they wish to have in it.

One phase of the movement is liberal education for businessmen, including executives. This aspect alone has taken on sufficient prominence that the conference referred to above was attended by thirty people from the academic world and business concerns; they talked for three days.

Included in liberal arts programs are those sponsored by a company for its management people but carried out by a university, such as the prototype at the University of Pennsylvania and other Bell programs of shorter duration at Swarthmore, Williams, Dartmouth and Northwestern. These company-sponsored programs are not the ones this paper is chiefly concerned with, however. Rather we shall consider programs sponsored by a college or university which enrolls participants from a number of companies. Peter E. Siegle¹ lists eight such programs in the country as of March 1958, including Clark, Southwestern at Memphis, Wabash, Pomona, Denver, Akron, Vassar and the Aspen Institute. These programs vary in length from a two-week concentrated dose of liberal arts to five-year intermittent doses.

Most of the programs employ faculty of the sponsoring institution, but there are varying degrees of the use of outside "big names." Southwestern and Pennsylvania, as examples, use them extensively and like this pattern. Wabash uses no outside academic people and the faculty planning committee seems convinced of the merits of this method.

The curricula vary from school to school. Some employ several themes to be discussed by the same people for a number of meetings. Some try greater emphasis on the humanities and/or the social studies, others on science. Wabash uses as a guiding principle a roughly equal emphasis on the three divisions of the college—science, humanities and social studies. An examination of all the curricula, however, reveals a close adherence to strictly

¹ Siegle, Peter E., "New Directions in Liberal Education for Executives," Center for the Study of Liberal Education for Adults, Chicago, 1958.

liberal arts subjects and themes. None of the current programs cater to business or practical subjects, or even really admits them at all.

Thus, while we find diversity of method in the different programs, we see commonality of purpose. Ralph Barton Perry² has a felicitous description of liberal education which strikes at this common purpose:

Education is liberal in so far as it invites and qualifies men to choose deeply and fundamentally, to choose ends as well as means, to choose remote as well as immediate ends, to choose from many rather than from few possibilities. Liberal education, so construed, makes successive generations of men aware of the widest range of possibilities by the discovery of new possibilities, and by reminding of old possibilities forgotten. It does so in order that men may choose with the utmost amplitude of freedom—in order that their lives may be filled to the maximum extent by what they thoughtfully and wittingly choose them to be. . . .

Why have liberal arts colleges for undergraduates undertaken to translate this purpose into action with special offerings to adults? There must be a number of reasons, including encouragement from business and industry. This paper will not concern itself with business and industry's reasons for "buying" these programs but stay close to the colleges instead. And I can mention only a few of their reasons; I am sure I do not know them all.

Immediately money comes to mind. Some would phrase it: "Are the liberal arts colleges selling their souls to commercial interests to make a few fast bucks?" Undoubtedly money is involved. The program itself may or may not be a direct fundraising enterprise for the college, but the indirect benefits through the good will established with corporations and individual participants may be a sound investment that will pay cash dividends in the future. Our own participants are also showing considerable interest in sending their sons to Wabash as they reach college age. This could be a monetary benefit to the college since most of them would be able to pay the full tuition. Whether it would benefit us in terms of the caliber of the students remains to be seen.

² As quoted in Goldwin, R. A. (editor) and Nelson, C. A. (consultant) "Toward the Liberally Educated Executive," *The Fund for Adult Education*, White Plains, N. Y., 1957.

Prestige may be another reason for undertaking a special program for businessmen. The value of this prestige and the form it may take are debatable, but it is not a factor to be overlooked. If the program turns out to be a prestige-giving part of the college's offerings, other colleges will want to get on the bandwagon. The Center for the Study of Liberal Education for Adults hopes to be able to exert its influence to steer only those colleges to the bandwagon who have the resources as well as the competence to do a fruitful job.

The service motive may loom large among the factors influencing a college to offer specially designed liberal arts packages for businessmen. This is a sort of obverse of the usual coin. Ordinarily we expect to receive a service and then pay for it. Some college authorities feel that institutions of higher learning have already been paid in part through contributions from their corporate friends. Some kind of management education would be a way in which they can in turn render a service to those friends. That corporation managements want the educational services that liberal arts can render is still enigmatic to many faculty members, but managements' reasons for buying are not the subject of this paper.

After mentioning money, prestige and service, I think that the basic reason faculties of liberal arts colleges are interested in programs for executives still remains to be mentioned. This is a sense of mission about what we teach, or stated more brashly, a desire to extend our sphere of influence and to assume a continuing responsibility. We may kid ourselves that we have been hooked into doing this by the higher-ups, or that we do it because there is money in it for those who teach, or that this is an interesting little experiment from which we stand aloof while we participate, but I do not think we really stoop to selling our integrity. These considerations may be quite cogent, and I hope that we do not reach the point when we overlook them and others like them. If we do not feel, however, that the liberal arts are valuable for people other than full-time college students or teachers and have a sense of responsibility for going beyond the four-year curriculum, we have no business engaging in liberal arts programs for executives or anyone else but students of college age in college.

We have little documented proof that the liberal arts make a

better man—whatever a better man is—but we have much evidence, and we believe it. We have even less proof that a better man will be a better executive, but I think we believe this also. Most of us, however, are unwilling to sell our programs on this basis. We would rather rest on the assumption that corporate managements want their members to be “better men” and are willing to pay for stimulating them in that direction.

The question arises why we should pick out a special group to hold our interest outside the regular college classroom. Other than that this group is available, one line of reasoning goes like this. Management is rapidly becoming a profession, and one which will wield a great deal of leadership and influence, if not power. It is to be hoped that this influence will be that of statesmanship. Many members of management have reached their positions through competence in a specialty, such as engineering, accounting, sales. Regardless of their previous educational backgrounds, this specializing experience has narrowed their outlook and perspective. They need a refreshing and broadening kind of experience. Liberal arts should be an ideal vehicle on which to get it. Ergo, expose them to the liberal arts—many for the first time, some for the second time.

I use the word “expose” advisedly. A liberal education does not make leaders nor does it necessarily produce broad and productive thinkers. But given certain qualities in men, a liberal education opens channels of thought which can encourage these qualities to grow and be ever more useful. To make an exhaustive list of these qualities is outside the scope of this paper, but we might mention a few, without elaboration:

1. Nonconformity and flexibility of thought and receptivity of mind—a capacity for learning and acquiring new ways and new ideas;
2. Imagination—the ability to see where others are blind, the ability to think beyond the confines of the executive suite and the laboratory;
3. Introspection—knowledge of the areas of weakness of one's special and technical skill and of one's own personality.

Given such qualities, do we have any specific objectives for programs to develop or enhance them? The participants at the conference referred to above spent three days hashing over this matter. Specifically the question was stated as one of the objec-

tives of liberal arts programs for executives. Of course no grand scheme emerged, but some interesting areas of agreement did jell. Before mentioning the objectives themselves, we should note that they were predicated on several assumptions. First, programs of liberal education should be concerned with the man rather than the job, and with education rather than training, if training is considered reproductive of itself rather than enabling a man to have a more creative relation to his work, his society and himself. Education is devoted to the latter and to the development of intellectual habits and attitudes. This conception of education for the executive identifies him as a man required to exert, albeit in special sets of circumstances, the most fundamental human powers and insights.

In presenting the objectives listed by the conference, I hope I am not sacrificing too much of the flesh and blood by giving a mere skeleton. James B. Whipple, of the Center for the Study of Liberal Education for Adults, has supplied the elaboration, and interested readers might ask him for it. The objectives are:

1. The education should direct the participant toward the acquisition of knowledge.
2. The education should enhance understanding and experiencing the intellectual process.
3. The education should increase ability to discriminate among values.
4. The education should develop individual potentialities.
5. The education should increase the sophistication of an individual's sensibilities toward esthetic experience.

Having stated such general and almost time-worn objectives we find the question of time a crucial one. How long does it take to do whatever we want to do? Traditionally we take four years in college to introduce a student to the liberal arts. Can we do it in less and in a different way? How much can we depend on more mature people, such as executives, to continue on their own a process they start during the course of such a program? So far as I know, Wabash is the only college with a program that has a built-in mechanism for encouraging continued study. Still, all liberal arts programs for executives must be of shorter duration than the usual four-year college course. This is the reason for my title: "Shots in the Intellect."

Whatever our answers to these questions may be, they are still tentative. However enthusiastic college administrators and

faculty members are about aspects of these programs, they are also still questioning them and are to some degree skeptical. So we say we are still experimenting. We cannot erase the fact, however, that at least thirteen colleges and universities are involved in such efforts and that several more are toying with the idea. The questions have not been satisfactorily answered, but they have been answered. It is my own guess that they will receive modified answers in the future and that this movement will continue to prosper. Given a fairly stable economy, they should supplement many executive development programs which emphasize specific management skills. They may also compete with such programs, although there is no inherent reason why they should. There are already signs that some of these executive-training programs are advertising how "liberal" they are.

What does all this add up to for the college, besides income if the program more than meets expenses? The first question that comes to mind is whether this is a "good thing" to do. Our dedication to the liberal arts would seem to answer this question. There is the subtle implication, however, that anything we do that might even remotely serve to increase the profits of a company is too practical and non-liberal-arts. Most of us let this one die an easy death. By and large, faculty members who have taught in these programs have been a little frustrated at the tenacity with which mature men with business experience hold their attitudes and opinions. This frustration seems more than overbalanced, however, by the joy it is to work with men who are well motivated, interested, and who add meaning to the material discussed through their maturity and experience, which is seldom possible for the undergraduate. All of this without the goad of grades, too. Working in a liberal arts program for businessmen is in most instances a stimulating experience for the faculty member. It is so because of the experience itself but more so if the faculty have a sense of faith that their efforts will enlarge the vision of at least a few of these men. It is sometimes hard to hold to this faith, but so it is with undergraduates.

If it can be conceded that it is a good thing to do (and I do not mean to imply that there is agreement here), a number of practical problems arise.

Who will staff the enterprise? As I indicated earlier, several of the colleges go outside their own faculty for a significant num-

ber of their teachers and seminar leaders. Wabash has preferred to stay close to home on staffing, both because of our confidence in our own faculty and in order to provide added compensation for those who participate. There is evidence that some of our faculty have been influenced not to accept positions elsewhere by interest in the program and by the added compensation. Let me add that other members of the faculty are lured by neither. I do not know their reasons, but I would suspect that some have no interest in it and others have professional commitments which are more important to them.

Once the decision has been made to staff from within or from without, the question still remains as to which men will do what. If the college goes outside its own faculty there are many problems of selection and budget to contend with, but there are peculiarly ticklish decisions to be made when the choice is among the faculty. It is doubtful that any program would be long enough or varied enough in content to require the services of all the faculty, even if they all wanted to participate. For example, none of the programs I know of includes foreign languages, because of the inherent difficulty of teaching them in the short time span available. But in areas where the content does lend itself to the short periods available, the question remains as to who does the teaching. Assuming that selecting must be done, on what basis? Do you pass the work around on a rotating basis? Do you assume that a man who may teach admirably when he has a whole semester to develop his thoughts might or might not be as able to communicate in this different setting? I use these as only two possible alternatives. Is either of them fair? The first assumes that everyone participates whether he wants to or not; the second may leave out some who would like to do so. In terms of money alone, this means that the "gravy" (if it be viewed as such) is flowing only to some of the faculty.

Under this scheme, those profit directly whose subject matter falls into the program's curriculum and who are judged to be the most effective in communicating to the kind of audience involved and who are willing to participate. It is only indirectly that other members of the faculty profit, if at all. If the program is designed to bring in revenue for the college rather than merely to break even, it is conceivable that the additional gravy

would filter into the pockets of all (a messy metaphor, perhaps). In our own case there is another complicating factor. Some of our PDP staff are paid by the lecture and others by the week. If two men are equally able and willing to give a particular lecture, and one of them is on "flat rate," it is easier to assign the lecture to him.

What about inroads on faculty time? This could have a direct bearing on students. Are the benefits to the college or to the individual faculty member worth the time it takes to put on a program for executives? Of course the major burden of teaching in such a program usually comes in the summer, or in those colleges where the program runs concurrently with the undergraduate program, faculty may have some free time. It seems at first glance that this would settle the question. A second look shows, however, that contrary to many critics of the teaching profession, many faculty members do perform research, study, write and in other ways add to their professional stature during the summer as well as during the year. A program which seriously interferes with such endeavors might deserve scrutiny. For most of the lecturers in a program for executives, the demands of the program are not great enough to interfere seriously with the teacher's own study unless such study would take him away from the campus. There are a few, however, who are involved often enough that they begin to "sweat." For the first few years such perspiration may be minor. There are benefits from working closely with faculty members from other departments, hearing them lecture and leading seminars with them. This can enrich one's own teaching. What happens when such benefits become old stuff?

One solution would be to spread the load around among the faculty. Where the faculty is small, however, this is easier said than done. On the other hand, if the program gets big enough, the college might add to its faculty. Where a department would profit from having another man representing a specialty within the department not currently represented, this procedure would seem to be a net gain. Such a solution is predicated, however, on the assumption that the college as a whole is solidly behind its program of liberal arts for executives, and that it is no longer an adjunct.

We must not underestimate the importance of these practical implications that derive from the kind of adult education this

paper is concerned with. Yet they are problems to be faced and dealt with in terms of both advantages and disadvantages for the college as a whole. The small liberal arts college usually sees its role in society as providing educational experiences for undergraduates. These programs for executives go beyond the undergraduate and involve a different group, who do not have formal education as their goal. Do liberal arts colleges want to get mixed up in such affairs as more than a sort of sideshow?

The need for doing so seems clearly apparent. Sitting in their ivy or ivory (I have never been sure which word was appropriate here) towers, proponents of the liberal arts have for some time been sounding the warning about our technological civilization and its materialism and gadgetry. Men in high places in government and industry have begun to take up the chant. It is true that recent liberal arts graduates do not always feel that these words of the managements of companies have filtered down to their employment directors, but many magazines and journals have carried articles emphasizing the need for "broad-gauged" executives. These expressed needs of professors and businessmen may be based on different assumptions and have different goals in mind, but both suggest the same sort of solution—experience with the liberal arts.

Why then is not experience with the liberal arts at the undergraduate stage the answer? I certainly think that it is a part of the answer, but even with what we are doing by way of liberal arts education for undergraduates the need to do more for business leaders seems strongly felt. Perhaps we should say the need is for continuing the liberating effects of education.

I referred earlier to the fact that many members of the important and growing profession of management have had little if any contact with the liberal arts. They have come to their present positions by way of narrower and narrower specialization and may now feel the need of greater understanding, appreciation and concern for those very things which are the backbone of the liberal arts. Their testimony is heard against a background of studies eventuating in books such as those of Riesman about the nature of our society and of Whyte about the business community as one segment of society. In Whyte's portrait of "The Organization Man" we see a person without the creativity and individuality which have been the pride of not only American business but the so-called American way of life. Even if the

picture is only partly accurate, the organization man needs a liberating kind of challenge. The question is whether the liberal arts colleges should exert themselves to try to provide it for at least a few of the leaders and potential leaders of American business.

Then there is the matter of continuing education. There are myriads of programs and courses for continuing education for businessmen in various specialties. But outside of courses available in the evening divisions of universities there seems to be little that a man of 30, 35 or 40 can get in the liberal arts. This need for continuing *liberal* education seems real. Let me quote J. Roby Kidd, Director of the Canadian Association for Adult Education,³ "Alfred P. Sloan has often declared, 'Give us *educated* men. We can *train* them ourselves. But we cannot *educate* them.' But, as Mr. Sloan understands very well, the kind of education he refers to is initiated, but not completed, in college halls. Much of what constitutes a genuine liberal education is just not possible for a youngster. He can read about it and consider the problems intellectually. But the real significance of much of ethics, philosophy, and drama can only come to a man well past his youth whose deepening experiences of family, vocation, and community enable him to see and feel and understand new relationships and begin to judge values."

Could it be that a role the liberal arts college can play in present society is not only helping mold the minds of men but of vitalizing or revitalizing men who have already charted their courses and are following them, men whose goals and aspirations are in process of being fulfilled or left unfulfilled? This may be one of our challenges. I do not mean to imply that we promise to "educate" as the verb is sometimes used, to mean "turn out a finished product." The whole point of continuing education is opposed to this kind of guarantee. In liberal arts programs for executives we can no more promise what some industrialists want than can our undergraduate four-year programs.

But I do mean that we in the liberal arts colleges may have an added opportunity, and even obligation, to address ourselves to the business leaders who influence the texture of our society. Continued experimentation and study are needed to judge this possibility.

³ *Ibid.*

THE PURSUIT OF EXCELLENCE

GRELLET C. SIMPSON

CHANCELLOR, MARY WASHINGTON COLLEGE

IT is my hope this evening in the opening convocation of the academic year at Mary Washington that we will have set for ourselves a symbol of attainment, a pattern of thought and action that will serve to guide us through the days and months ahead.

I trust that as this college year progresses you will gain a greater awareness of life in its most thrilling form, liberty with its responsibilities and obligations, and the pursuit of a happiness that gives purpose and meaning to your being at college—the pursuit of excellence. You will notice that I am equating the often-heard pursuit of happiness with the less-often-heeded pursuit of excellence, for if ever the two pursuits may be enjoyed and experienced as one, there is certainly no more likely circumstance in which to encounter it than in your college career.

And if by any chance, wherever you are in the span of collegiate years, you have not yet experienced the sheer exaltation of happiness as made tangible in excellence, then I fear you have not yet envisioned what a college is ideally for and what a student should realistically anticipate and work for.

Thus I suggest for all of us the pursuit of excellence as the symbol, the pattern, the way of life which, in its varied forms, will control and unify our lives, at least for our brief moments together and hopefully for all the years to come.

There is a pursuit of excellence in your own personal life, in your communal life with family, friends, associates, and—especially as you begin or continue your college years—in your intellectual and spiritual life. I doubt that there can be a worthy pursuit of excellence in one of these three phases of your life if the pursuit of excellence is absent from the other two. Therefore it seems to me that there is a progression from one to the other. It is the concept of this total, inclusive and evolving progression, indispensable to a worthy pursuit of excellence, that I wish to share with you tonight—with the hope

that in increasing measure it will form the basis of our thought and actions at Mary Washington College.

If we accept—as I trust we do in our democracy—the principle that man has a dignity of spirit worthy of his inheritance, there is no idea more basic to human growth than the integrity of the individual in his personal life. If we do not accept this idea of personal integrity, the pattern of life in the pursuit of excellence which I am attempting to define for you becomes impossible. Integrity likewise cannot be sustained unless we constantly subject ourselves to that searching, biting, even caustic self-appraisal which gives a person an estimation of the status of his abilities and his limitations and thereby results in freedom from pride and arrogance about his background, position, activities or achievements. This humility, which is essential to the pursuit of excellence in personal life, makes possible such rectitude that one is incapable of being false to a trust, a responsibility, a pledge, an ideal—or in other words to a friend, to an enemy or to oneself. To make a right estimate of oneself is humility; and yet it is not humility for a man to think less of himself than he ought. Thus personal integrity cannot be attained unless one has a correct estimate of one's own capabilities and with the humility born of this knowledge one goes forward to accept the responsibilities and obligations which one's ability imposes.

In our communal life, it seems to me, the pursuit of excellence is best exemplified in the concept of justice tempered with tolerance. Without some success in the pursuit of excellence in our personal lives, crystallized in the idea of personal integrity, justice in our communal lives cannot be achieved, for it takes tolerance to be able to live with others, a sense of duty to wish to do so and an act of service to try to do so.

Only a strengthening and toughening of the fibers of one's personal sense of integrity can pave the way to the attainment of justice in the pursuit of excellence in the communal life of a college, a town, a city, a nation or a home. One of the fallacies of our day and time is the assumption that justice can be dispensed by authority in our communal life, whether or not a high sense of personal integrity has already been accepted and practiced in the individual lives of those who seek to share

this communal life. Justice, as a creative and generative factor in life, cannot be so brought into being. It is an inevitable outgrowth of the integrity of the individual members of the group and finds expression in our communal life in tolerance of people—their ideas as well as their actions—in the recognition of our duty to others as well as to ourselves, and in service—the unfolding evidence of our pursuit of excellence in striving for justice for the group as a whole. In the words of Benjamin Disraeli, "Justice is truth in action."

Finally the pursuit of excellence in our intellectual and spiritual lives is the one which is the most rewarding, both to ourselves and to our communities—the one which leads to the discovery of true excellence. Carlyle is reported to have said that "the eye of the intellect sees in all objects what it brought with it the means of seeing." This cryptic phrase states both the minimum as well as the maximum, the finite as well as the infinite, possibilities of the human mind as it seeks to perfect itself for the pursuit of excellence in the intellectual and spiritual life of mankind.

The exercise of integrity in our personal lives, the practice of justice in our communal lives, propel us urgently forward to the ultimate attainment of those virtues by which true excellence is defined for mankind. In the pursuit of excellence in our intellectual and spiritual lives, we must therefore develop "the means of seeing"—an open mind and a keen perceptiveness in distinguishing the false from the true. The resulting breadth of vision unfolds before our "seeing eyes" limitless possibilities in the pursuit of intellectual and spiritual grandeur.

Unless it is your desire to reach out as far as possible into the infinite, rather than to content yourself with the limitations of your present experience and thought, then I can assure you at this moment that you have made a grave error in wasting these precious years of your life in academic pursuits, or higher education in any form. In saying this, I am not trying to frighten you, to discourage you or to make you wish you had never come to college. On the contrary I am trying to define for you patterns of thought and action that can start you on a joyous and rewarding pursuit of excellence which points the way to realization of life's true worth in every avenue of your experience.

You are not here chiefly to develop the arts and skills of gracious and expansive living, important as those achievements may be (and I would not wish that you be without them). You are not here to be adjusted to society by some miraculous machinery never yet invented. Nevertheless, for those of you who choose here and now to engage in the pursuit of excellence, the whole universe lies before you. I hope that you will find it possible to accept this universe with Margaret Fuller, who after much anguished soul-searching confided to Carlyle that she had accepted it. For, as Carlyle replied, "By gad, she'd better!"

You are not here to circumscribe or circumvent your future with potentialities unrecognized and unrealized. You are here in the expectation that, as Emerson said, "the growth of the intellect may be spontaneous in its every expansion, for the mind that grows cannot predict the times, the means, the mode of that spontaneity." And with transcendent insight Emerson concluded his exposition of the concept of the intellect with the words: "God enters by a private door into every individual."

The pursuit and the achievement of excellence in your intellectual and spiritual life is a personal matter and at base is entirely dependent upon your perceptiveness in exploring with an open mind the maximum extent of your own breadth of vision. Anything less than your maximum limits the recognition and expansion of true excellence; it is a partial selling of your birthright and, I may add, is the greatest penalty, the gravest injustice, that you can inflict upon yourself, your community or your god.

The pursuit of excellence opens the mind and the soul to new horizons, new spaces, new vistas of infinitude. To set as our goal anything less is a denial of the trust, the obligation, the duty, the responsibility, the privilege, that comes to each of us at birth. It is the human principle—the law of life, the basis of all liberty, the happiness of our being.

It is with pride, with hope, with a sense of joy, that I commend to you the pursuit of excellence—the human principle—and I trust that you will go forward to harvest your excellence.

NEW APPROACHES TO COLLEGIATE LIBERAL ARTS

Part I: The "Environmental Fence" and the College Plant

SUMNER C. HAYWARD

SECRETARY OF THE COLLEGE, CHATHAM COLLEGE

INTRODUCTION

RECENTLY a forward-looking architect of industrial structures made an off-the-cuff statement to the writer which is relevant to the problem of college plant costs. In essence he said: "I know of no real short cut to construction which results in any significant, long-run savings for the builder or user of the building. Each attempt to cut corners seems to result in expensive compensatory measures having to be taken to make up for the shortcuts. In the long run, traditional methods seem to be about as inexpensive as any substitute methods known. However, one should always keep on the lookout for original approaches to building. It is just possible that the 'weather-fence' or 'environmental umbrella' might be one possible answer to today's high cost of school construction. Perhaps this is a method which will help to break the mold of high construction costs."

What is a "weather-fence" and what relationship does it have to a college campus? This question can best be answered by giving a detailed description of such a structure in operation. A preliminary definition would be: the weather-fence is a lightweight yet rugged covering for a large area of landscape, an umbrella under which men may live, work and build their buildings—buildings which would strongly contrast with buildings we see today, in that they would not have to be weatherproofed. In fact, under such an umbrella, some buildings might be obviated entirely.

The single-building weather fence

Let us suppose that on a fine winter morning, the tenants of a girls' dormitory awaken to find that during the night a giant and perfectly transparent covering has been erected over their

NOTE: This article, in two parts, was written while the author was a Michigan Fellow in College Administration at the University of Michigan and on faculty leave from Carleton College.

dormitory building. This covering extends at least 100 yards out from the edges of the dormitory building and thus includes under its protection the whole of the dormitory yard and gardens as well as the building itself. The girls find that the temperature under this "weather-fence" remains an unvarying 65 to 75 degrees.

What changes might occur in the lives of the girls! First of all, they might start to leave their windows open night and day; the front door would be propped open; the grass would start to grow green in the middle of winter; flowers would begin to bloom; sun suits would be dragged out of mothballs; sunbathing studiers would begin to appear on the lawn and some of the meals would be scheduled for serving "outside." Would life in this dormitory ever recover, even when the novelty of the covering had worn off?

Now let us further suppose that, during the summer, the dormitory building itself should burn down and all that would remain would be the plumbing in the basement and the umbrella covering overhead. The college would now be faced with the expensive task of replacing the dormitory. How would this dormitory be reconstructed, assuming that the overhead covering were still strong, absolutely weatherproof and periodically renewable? How would one go about designing a dormitory for use in this brand-new environment?

Such a new building under a weatherproofed umbrella would have to serve only two main functions: those of visual and sound barriers. Weatherproofed roofs, windows for shutting out the elements, weatherstripping, foot-thick walls and many other features of a traditional building, built to withstand the rigors of the climate, would be unnecessary.

Perhaps the cook, seeing that he might now be able to cook "out in the open," would refuse to be banished again to the basement. He would demand an adjacent "umbrella" of his own for his kitchen. The girls too might object to eating in the confined quarters of the old-type basement dining room. Someone might get the idea of combining an attractively shaped and landscaped swimming pool with the dining hall, and all meals would be taken at pool-side, "outside" yet under the dome.

The big problem might be that of individual dormitory rooms

under the covering. Each should allow for the maximum of privacy and a pleasant "home-from-home" for the student. Sound engineers could solve this problem if they knew that the rooms did not have to be weatherproofed.

Could such a dormitory, pool-side dining hall and kitchen be constructed for half the cost of a traditional dormitory, a third of the cost, 75 per cent of the cost? Would such a "building" last forever, in that it would be easily and inexpensively renewable?

A particularly daring architect-engineer might ask himself why one should stop with the weather-proofing of just one building. Why not a much larger area under the weather-fence—a complete college campus, for example?

National College

When viewed from a distance of several miles, the campus and plant of National College are spectacular: a series of multi-colored domes rising from the top and sides of a low, cone-shaped hill. Looking down on the campus from the air, one is further impressed by the layout of the buildings and grounds.

On the graded top of the hill, a circular slab of concrete nearly 400 feet in diameter serves as the base of the huge domed library—the focal point of the campus. This circle marks the beginning of a long ribbon of concrete—a giant corkscrew, ringing the hill in ever-widening circles and providing the base upon which all of the campus buildings have been erected. The edge of this wide, flat ribbon, not covered by buildings, is used as a service roadway. Since the hill was heavily wooded before construction began, all of the trees and foliage outside the path of concrete have been allowed to remain intact. As one drives up to the campus proper from the base of the hill, one passes through a forest of undisturbed trees and finally arrives at a parking lot situated directly in front of the first building, the office dome. This houses all of the administrative and faculty offices of the college. Let us take a guided tour of the campus.

We are met in front of the Administration Building and are escorted up a sidewalk (there are a number of these walks, like spokes in a wheel) to the central library dome. Our guide states that the library embodies principles followed throughout the campus and thus makes a good starting point.

On the way to the library he explains: "These are the outstanding features of our college plant:

1. All of the buildings are prefabricated, most of a geodesic design. Each dome, depending on its size, is constructed of diamond-shaped aluminum frames filled with opaque, translucent or colored fiberglass. Several of the newer domes, however, have no aluminum framework at all, but are built of large diamond-shaped sheets of corrugated fiberglass, clamped together. This material has enormous strength and durability, is translucent or transparent, allows for full plant and tree growth underneath and is easy to assemble. The unsupported panels themselves thus become a vast landscape-covering. Each individual panel can be carried by one man. He starts building a dome by affixing one section to the one below it with clamps. Each section reinforces the sections around it, so that when the dome is complete it has great strength and requires no interior supports of any kind. Domes ten feet to 1000 yards in diameter can be erected. Recently an aluminum dome theater building was erected in Hawaii for the Kaiser Aluminum Company by a few men in about two days. It houses an audience of 1500 people. This aluminum dome is naturally opaque, but as you will see, many of ours are translucent or transparent. Much of our interior decoration is the natural planting already there before we erected the dome. In fact, many of our domes are veritable gardens-under-cover, where the students carry on their activities in an outdoor yet completely weather-controlled environment. One sage has described our campus as something which goes "back to Eden." I prefer to think of it as a number of "weather fences" under which the architect is free to express himself in free-form buildings, a freedom which is possible because buildings do not have to be weatherproofed within these environmental fences.

2. Nothing has been used on the campus, either in or on or of the buildings which is not mass-produced.

3. Everything, including the buildings and their inner buildings, is movable and repairable by unskilled or semi-skilled workmen, excepting of course the electrical work, plumbing, heating and cooling devices.

4. The redecorating problem has been kept at a minimum.

About the only redecorating we have to do is a weekly hosing out of the domes, watering of the plants, and a yearly power-wash of the domes themselves, both inside and outside. This campus doesn't know what paint and plaster mean. I'll probably think of other things as we go along, so let's see the library."

Dome 1—The Library

From the outside, the library is an impressive structure—a hemisphere attached to its giant circular concrete slab. The covering at the top of the sphere is opaque, but as one comes down the sides, the material is progressively translucent, in some sections actually transparent. "The pattern of illumination can be varied by merely switching the panels as desired. This can be done, of course, without disturbing the dome as a whole. Notice that in the evening one of the illuminated domes at a distance is a blaze of color. It is the college dining hall. It contrasts sharply with the stately patterns of lights of the library. Notice too that the bottom rows of panels around the base of the library dome are openable. This is necessary for the summer air-conditioning of the dome. I'll say more about that later."

Stepping into this giant dome is like stepping into a different world. The whole interior is bathed in a soft reflected light. No lamps are needed on the tables. "To achieve this effect is simple," our guide explains. "Spots are turned on the inner surface of the dome and, as a result, no nook nor cranny evades adequate illumination. Have you ever seen 1500 desks in one room? In the central portion of this large dome, which is longer than a football field, are thirty rows of desks, fifty desks per row. Each student at 'National' has his own desk and lock box in the library.

Just then we are motioned to step aside to allow for passage of a twenty-foot dome. "There goes the binding room. The librarian wants it closer to the periodicals. Two men with hand carts can guide it to its new destination. If it weren't so clumsy, one man could carry it alone: it weighs only about fifty pounds. It doesn't matter where you put a small dome within this mother dome. Just see that it is set over one of the heater-cooler-ventilator-electrical troughs which run out radially

from the central air-conditioning post. Since the mother dome is kept at a constant temperature, an exhaust fan in the top of the smaller dome is all that is necessary for 'weather conditioning' inside it. A portable spotlight or two, hooked into one of the floor outlets and played on the small dome roof, completes the picture.

All faculty and administrative offices, classrooms, etc., are movable like this. If we don't need a room any more, we just knock it down (takes an hour or so) and store it. When a larger room is needed, we get one out of storage or order it. This college hasn't seen a hammer or nails in years. The smaller inner domes are made of resin-treated cardboard and are enormously strong—much stronger than is strictly necessary for an indoor building. One such twenty-foot dome weighs about fifty pounds and will stack, disassembled, into a six-inch pile which can be stored on a shelf for use when needed. We literally have 'room service' at this college.

The library stacks are located all around the edges of this circular dome in spokelike fashion, extending about fifteen feet toward the center. In this way the library really surrounds the student while he is studying. Seldom-used books are located on 'dumb waiter' stacks which extend several hundreds of feet into shafts in the ground. A push of a button brings the appropriate shelf to the surface. With our present setup we can take care of 500,000 books. However, this can be extended almost indefinitely by putting more books into the shaft deposits, extending stacks further into the study area or putting up a new building of slightly larger diameter. The amount of independent study on campus necessitates an unusually complete library. The four other domes you see inside the main dome are the reference desk, the card catalogue, the librarian's office and another one they put up yesterday as a student smoking lounge.

Heating, cooling and ventilation are easily taken care of. See that large post-like apparatus situated in dead center of the dome? Heated air is blown out the top of this twenty-foot post, rises to the top of the dome, and then naturally circulates down the walls to the floor. From there it flows back to the center post, keeping the whole floor area warm. When it gets to the

center, it rises again, is joined by more heat from the post, and the process is repeated. This natural circulation keeps all of the occupants warm in cold weather, even though the actual dome itself feels cold to the touch. The process is different during the summer. A vent is opened at the top, other vents are opened around the base of the hemisphere, and air from these peripheral windows enters the building and rises to the top vent. Thus there is always a breeze in the dome and never any need for a fan of any kind. All parts of this building can be assembled in a matter of minutes, and all materials—floor, walls, even furniture—can be hosed off and dried in a few hours. The floors are made as attractive as possible by using alternated slabs of colored concrete in a radial design which follows the paths of the troughs. Ceramic tile and brick are also used.

In spite of the fact that we change the mother-dome panels every 25 years or so, we may want a new dome someday. Perfectly simple. Most of the material we take down can be used in other domes—they're interchangeable.

Dome 2—The Classroom Dome

In this and in the library dome, the academic pursuits of the college are chiefly centered. To walk into the mother classroom dome is an unnerving experience. One is reminded almost immediately of a huge mother hen sheltering a vast brood, for under one large covering are scores of smaller domes. Each college quarter the classrooms are tailored to the needs of the college for that quarter. For example, small domes for classes of fifteen which must make room for larger ones housing thirty are disassembled in a matter of minutes and stacked on shelving around the periphery of the building. Laboratory domes are centered in the end of the building piped for gas and especially equipped with forced-air ventilators. People often ask us if we don't get tired of round rooms. My only answer is that we get so used to them we don't even think about them any more—much as everybody has become used to rooms with square corners. And our rooms are much better acoustically. There is a minimum of echo, even in the smallest domes—something that can't be said of many traditional rooms.

Also consider the flexibility of our classroom plant. To enlarge a traditional classroom is a serious matter. Hordes of workmen, plaster dust, hammering, disruption of a whole floor while the work is being done. And then what do you have? A fixture which will have to remain that way for the next fifty years. The other day, due to an increase in enrolment in a class, we found it necessary to enlarge the classroom. In part of one afternoon, one unskilled workman with a ladder, a screwdriver and a wrench took down and built up a new classroom with no noise. In fact, at the time he was working, classes were going on all around him without noticing the alterations. This has been a by-word of 'National.' 'As fluid a plant as possible. And don't use anything that one man can't carry.' Costly alterations are a thing of the past for us. We use only materials that are self-decorating—materials with the color and texture built in. What we save, which is considerable, goes into student-aid and salaries.

Dome 3—The Auditorium, Theater, Chapel, Dance-Hall Dome

A 150-foot dome (in diameter) will easily seat 1500 people. Ours is larger to allow for a little theater too. The acoustics of this shape of building are excellent for either symphony or a single voice. The stage, curtains, lighting, etc., are all portable. By rolling the large stage around the building, it can be joined with the little theater stage to make a much enlarged platform. For evening concerts we often turn dark blue lights on the dome ceiling for the "outdoor effect." One end of the dome is white and serves as a huge screen for slides and motion pictures. The rows of benches with individual arms are of light, reinforced plastic and can be easily moved by one man and stacked out of the way, leaving the floor clean for dances and carnivals. It takes about two man-hours to make such a transformation. Dressing rooms—individual resin-reinforced paper domes—can be taken down or put up in a matter of minutes. When not in use, they can be stacked in the supply dome, either fully assembled or in a neat rectangular pile.

Dome 4—Men's Dormitory Dome

The dormitory domes are among the most interesting of all, for under three domes the principle of covered buildings is illus-

trated. I need not point out that when a building is covered by a dome, enormous savings in construction result, as the inner building does not need to be weatherproofed. Even when one adds the cost of the dormitory to the cost of the dome, the total is considerably under the cost of the traditional dormitory. Around the periphery of this dome, two-story dorm buildings have been erected. All doors to the rooms open into the dome interior, the doors to the lower rooms opening on to an inner patio, and the upper floor rooms on to a balcony overlooking the patio. The balcony is of wrought iron, and stairways descend at frequent intervals to the patio below. Each room is about ten feet wide and fifteen feet deep and will house two men. Thus around the 1000-foot periphery of the dome can be located about 100 rooms below and 100 rooms above. Some of these rooms are baths for about twenty men, but the majority of them house two men each. About 300 men are thus housed in the periphery ring of rooms. Inner rings of dormitory buildings also contain these two tiers of rooms. Each room is sound-proofed and has one full wall of transparent and translucent plexiglass looking out on one of the long narrow ribbons of patio which form concentric circles with the dome. Rooms are adequately ventilated, heated and cooled by means of fans which draw in fresh air from the dome interior. About 800 men can be housed under such a dome.

Dome 5—Women's Dormitory Dome

The women's dormitories are just like the men's.

Dome 6—The Dining Dome

We have tried to combine here the efficiency of a cafeteria with the intimacy of a family dining table. This large dome, covering about 25,000 square feet of floor space, is separated into ten separate dining plazas (each with its associated lounge) by low, movable planter-walls and by hedges and trees growing from unpaved sections of floor. About 150 students are assigned to eat in each 'dining room' (fifteen tables of ten students each. The dome itself is a riot of color—hundreds of colored sections randomly spattered in a gay over-all pattern. At meal-times, a steam-heated cart is rolled into each dining plaza from the central kitchen in a nearby dome. Each table is served from

this cart, and after the meal all dishes and utensils are returned to the cart, which is then rolled back to the kitchen. Once each day, all of the dining areas are power-washed with hot water. The furniture is constructed so that the water quickly drains away (even from table tops and chair seats) or evaporates. To wash a dining room takes about fifteen minutes, and all of the dining rooms for 1500 students can be so cleaned daily by one person in a little over three hours.

The lounge area which is associated with each dining room and serves as a student meeting place before meals is just as easily cleanable—like the whole interior campus for that matter. Everywhere in this dome, as in many other domes, planting of various types thrives—sometimes in movable planters, sometimes in unpaved floor sections. An “out-of-doors” feeling is thus preserved.

Dome 7—The Office Dome

The mother dome housing the individual office domes resembles the classroom building except for the size of the inner domes. Some domes are larger than others, these being administrative centers such as the business, admissions, placement, publicity-public relations offices. A central file dome is handy for the use of all, considerably simplifying record-keeping in that many duplications are unnecessary. A number of small domes are available for placement interviews. Suspended from the center of the ceiling of the mother dome is a huge geodesic sphere—a world globe which slowly revolves. It also serves as a source of light at night. In this dome, an interesting pattern of alternating colorless, translucent, opaque and subtly colored panels has been used. Facing a center fountain, which surrounds the heating-cooling post, are the president's office, as well as the offices of the academic dean, dean of men and dean of women. Here it should be pointed out again that the arrangement, size and numbers of the various domes can be altered to fit the needs of the moment.

Dome 8—The Athletics Dome

Under one roof, and on one floor, are placed two gymnasias, a track, a central swimming pool, showers and numerous transportable dressing rooms—in other words, all of the indoor ath-

letic area and equipment of the college for both men and women. Offices of the athletic faculty, at one end for women, at the other for men, are also available. Bleachers surrounding the gym floor can be easily wheeled around the pool for swimming meets, water carnivals, etc. As in many of the other buildings, even illumination of the whole area is accomplished by throwing strategically placed spots on the reflecting surface of the dome ceiling. Light can also be concentrated by the same devices, and during extra cold weather the heat generated by spots and reflected from the ceiling helps to maintain a constant temperature throughout the dome. In warm weather, a cool-type lamp source is used.

Dome 9—Shops and Services

All of the services of the college are collected here. This includes kitchens, carpentry, plumbing, physics workshop, dark-rooms and bookstore. They are separated from each other by high curtain-wall partitions suspended from the ceiling. All partitions run radially so as not to disturb the flow of air in the dome. Sound-absorbing cones hang from the ceiling at frequent intervals. The far end of this dome serves as a garage for the college vehicles. A stepped-up ventilation system is maintained.

Dome 10—The Lounge-Discussion Dome

A single large lounge dome, replete with snack bar, splashing fountains, indoor hedges, trees, flower gardens, etc., is roofed with transparent panels which have been aluminized to reflect the heat. A completely outdoor feeling is maintained. A large central concrete slab can be used for informal games or formal dances. The social life of the college in a very real sense is centered here. Gaily colored canaries fly at will, and all furniture is of a garden variety. The whole building and contents are washable. Dozens of 'conversation centers' are provided.

The total covered space of the very adequate physical plant of a well-known midwestern college of 1000 students, including its new library and two new dormitories, totals a little less than 400,000 square feet. On this basis, "National College," with its 1500 students, might well plan for 600,000 square feet. Here are the comparative figures:

Dome No.	Purpose of Dome	Proposed square footage for 1500 students	Square footage of comparable facilities in an already established college of 1000
1	Library	53,000	35,000
2	Classrooms	90,000	60,000
3	Auditorium, etc.	14,000	9,000
4	Men's Dormitory	92,000	61,000
5	Women's Dormitory	90,000	60,000
6	Dining and Lounge	23,000	15,000
7	Office	33,000	22,000
8	Athletics	60,000	40,000
9	Service	90,000	60,000
10	Lounge	60,000	
Totals		605,000	362,000

R. Buckminster Fuller, originator of the geodesic dome, has suggested that ten domes may be too many. One huge dome 875 feet in diameter would enclose about 600,000 square feet of floor space and would be cheaper to heat and cool than the combination of ten domes. But Fuller suggests an even more spectacular solution: Why not dome the whole hill and have a completely controlled-weather campus? Fuller is convinced that a great revolution in the way we live is already in the making. Vanishing rapidly are the days of the masonry and wood building, as we become able to enclose large areas inexpensively with strong, light, weather-resistant coverings. Why wrap your grand piano, your antique divan, your house or your college building in a ruinously expensive covering in order that it may be able to stand outside in all kinds of weather? Bring them inside, under cover, where an occasional washing and waxing will keep them like new.

Weather-Fences in use today

Does all this sound fantastic?

Many of the structures, portions of structures, and processes involved in the above descriptions are somewhat in advance of

today's engineering and manufacturing experience—but not too far ahead. The writer has made an investigation of the present status of these types of structures and summarizes his findings under two sections: the rigid dome structure and the inflatable dome.

(a) The rigid dome structure

Production of this type of structure is in high gear with at least one large manufacturing company. Opaque metal domes are available up to 200-foot (diameter) sizes. Even larger domes (almost 400 feet in diameter) are in the planning stage. Other companies are soon to get into production, and competition will undoubtedly improve the product. One company is considering the manufacture of domes for rent and erection on sites picked by the tenant.

Although these metal domes are by their very nature opaque, they can be combined with about ten per cent of translucent or transparent material. Some domes are formed from an entirely translucent fiber-glass-type of material.

Translucency or transparency increases the cooling problem in summer and aids in winter warming. Since interior cooling would perhaps pose the most difficult problem, a northern climate would be more favorable than a warmer climate.

Moisture-proofing of the dome is still a big problem, but new calking compounds and sealing tapes have already been or are now being rapidly developed.

Experience indicates that domes of too great height are liable to have inside weather problems of a unique character. For example, it can actually cloud up and rain in such a structure, independently of outside weather conditions.

Noise control is another problem for research. Such control, as well as problems dealing with the heating, cooling and ventilation of domes are major problems now being attacked by engineers.

The present price of a dome structure is considerably greater than a hoped-for \$2.00 per square foot of ground-space covered. Between \$5.00 and \$10.00 is nearer the actual cost, depending upon the amount of fine finishing to be included in the cost of the dome. For example, finishing costs for a dome which is to function as a *building* would probably be greater than those for a dome whose function would be that of a *coverer* for other buildings.

There is a considerable variety of domes already erected or in the last stages of planning here in the United States. These domes are of all sizes and are made of a wide variety of materials. They range from ten to 500 feet in diameter and are constructed of fiberglass, aluminum, stainless steel, anodized gold on aluminum, wood, plastic-coated nylon, etc. Some of the uses of such domes include convention halls, theaters, industrial housings, supermarkets, banks, auditoriums, community centers and gymnasias.

Dome shapes range from the three-quarter sphere all the way down to a small fraction of a sphere. Even irregularity of shape is possible, including involutions and convolutions of roof shape.

(b) The inflatable dome

Such a structure is made of lightweight material, usually plastic, which is inflated and supported by the maintenance of a slightly greater air pressure inside of the structure than outside of it. The increased air pressure required to maintain a hemispheric dome is not noticeable to a person entering from the outside. Revolving doors can be used as entrances for such domes, keeping the pressure constant within the dome.

Clear, pliable, transparent plastic material, when reinforced with criss-crossed nylon strands is enormously strong. Such material is ideal for the inflatable structure and has a tensile strength of some 25,000 pounds per square inch, equal to that of hard aluminum and some steels. A designer has found, after extensive wind-tunnel tests, that a 300-foot transparent inflatable dome will stand up under at least 140 miles-per-hour winds.

One fabricator envisions the day when such structures will cost about 35¢ per square foot of ground-space covered, considerably less than the cost of the rigid type of construction.

After fabrication, such structures can be erected in a matter of minutes. Structures of almost any size and shape are possible: quonset shapes, doughnut shapes and tetrahedral (pyramidal) shapes, to name a few.

The life of the plastic skin of such a structure, now about ten years' duration, will undoubtedly be lengthened in the next few years. Constant experimentation is resulting in skins progressively resistant to the ravages of the elements. When a new skin is needed, a building under such a dome can "shed its co-

coon" and have it replaced practically overnight—and at a cost comparable to that of a paint job for a conventional structure.

Ventilation of the interior of the inflatable dome poses a knotty problem, but research is being carried out on this problem.

Special solar heating equipment can be a real aid to the temperature maintenance of such a structure. In fact, one fabricator believes that such a structure could be completely paid for in heat-cost savings within about five years.

A partner in one firm of architects currently involved in the designing of an elaborate inflatable structure recently said: "As architects we are continually searching for better and more effective ways to serve our traditional role of improving the working and living conditions of mankind. The use of plastic in this dramatic new form offers a great promise toward the fulfillment of this search."

Only time will reveal whether such promises will be realized, but meanwhile college planners should be alert to the possibilities of the environmental fence.

COUNSELING TOWARD COLLEGE TEACHING

ELVA McALLASTER

PROFESSOR OF ENGLISH, GREENVILLE COLLEGE

AMERICAN colleges need teachers, and are going to need a great many more in the decade ahead. No one in higher education today seems to doubt this assertion.

Most undergraduates, meanwhile, do not consider college teaching seriously as a possible profession for themselves. This fact was brought into sharp relief in a study recently completed by John Stecklein and Ruth Eckert at the University of Minnesota. They found that only nine per cent of the people now teaching in Minnesota colleges had planned such careers before they entered college "and less than a third began to think seriously about it during their undergraduate years."¹

The logical sequitur is that undergraduates should be informed about possibilities in college teaching, urged to think about college teaching, guided toward college teaching, if our faculties are to grow as they must. We have students with us during four malleable years in which we should be able to convince a good many of them that the academic life is a good life and that our footsteps are worth following.

Up to now, recruitment for college teaching has not been a prominent aspect of the American educational scene. A major conclusion of Stecklein and Eckert's study emphasizes this fact:

College teachers seem to have entered this field more by accident than by deliberate design. By and large, they did not look forward during their undergraduate years, as young people entering most other professions do, to working in the field in which they are currently engaged. Nor had many of their own teachers or counselors taken active steps to encourage consideration of this field.²

A current study of Greenville College alumni who are in higher education offers some suggestions as to how fruitful counseling toward college teaching can be.

¹ John E. Stecklein and Ruth E. Eckert, "An Exploratory Study of Factors Influencing the Choice of College Teaching as a Career," U. S. Office of Education, 1958, p. 40.

² *Ibid.*, p. 44.

Greenville College, a small Free Methodist college in southern Illinois (present enrolment about 500) has achieved a remarkable record, comparatively speaking, in the production of college professors among her alumni. A survey of 1957-58 catalogues from forty Christian liberal arts colleges and junior colleges showed 105 Greenville College alumni at work on 22 different faculties. Among the forty schools studied, this was distinctly the highest professor-productivity. Next highest was Wheaton College (Illinois), with 95 teaching alumni; other schools showed from two or three up to 79 of their graduates teaching in the colleges studied.

Greenville alumni are also helping to man the state universities as well as the smaller, private liberal arts colleges; they are now represented from UCLA to NYU, from the University of Michigan to the University of Texas.

Recently a group of Greenville College alumni were queried about the effects of their undergraduate training on their decision to enter college teaching. Each was asked what he considered responsible for the high proportion of Greenville College alumni in college teaching. Responses point strongly to the fact that individual counseling can direct persons toward college teaching who might not otherwise have considered it.

"In my case," wrote Dr. Delvin Covey, who teaches classical languages at the University of Connecticut, "Miss Dare spent four years talking about grad school and encouraging that I plan to go on. Miss Tenney encouraged me to plan to teach."

"Indirectly two people were responsible for me to go on to graduate school when I had no intention of doing so," reported a Greenville alumnus on the staff of Roberts Wesleyan College. "I had hoped to get a job teaching in high school. Mrs. Andrews, sociology teacher, took me by the collar one day and scolded me for allowing myself to think I was not capable of going on to the university. This started me thinking. The second person was Dr. Marston who went beyond the call of duty to find a way for me to begin my study."

Betty Lou Ivers, staff member at Central College (Kansas), gave credit "to the president, Dr. Long, and older faculty members for upholding high academic standards in a small college and for outstanding spiritual guidance, example and leader-

ship," adding, "their help gave me my first aspiration for teaching."

"Dean Harford did a great deal to encourage me," said Reba Berry, dean of women at The King's College, regarding her choice of higher education as a vocation—further testimony to personal counseling and encouragement as incentives.

"Dean Goerge Tade was largely responsible in arousing my interest in my chosen professional field," reported a speech professor at Upland College. "He approached me and indicated his belief in my ability."

Credit went to Dr. Alvin B. Quall for another Greenville alumnus. "Because of him and his influence, educational-wise and spiritually, I am in Christian education, particularly Christian higher education. He persuaded me to give it a try, and I did."

And another: "President Burritt was the main factor in encouraging me to be a teacher. He took an interest in individual students and was well qualified to advise along that line."

Miss Dorothy Zook, of the education department at Bethel College (Indiana), said that credit for her move from public elementary school teaching to college teaching goes to "Dr. Kinney—definitely! Because of the confidence she placed in me, and many other reasons too numerous to mention."

Dr. Floyd McCallum, dean of Owosso College, is grateful "to Dr. L. C. Philo of Owosso College and Dr. Alvin Quall then of Greenville. Both of them encouraged me to enter the field."

Regarding his student days at Greenville College and the circumstances of his becoming a college teacher, Dr. M. B. Miller of Seattle Pacific College remembered that "one of the faculty took an interest and discovered an opening. I was not interested prior to the time the opening materialized."

Chains of circumstance are at work in any life and links of influence are not always easy to trace, but the weight of appreciative comment about the influence of a particular faculty member indicates that a good many Greenville alumni have been thus guided toward college teaching. Evidently Miss Rachel Crown, who has been teaching at William Penn College, would speak for many Greenville College alumni in seeing the school's distinctive feature for producing professors as "teachers' counsel-

ing of students to do graduate work and their practical help in students' obtaining scholarships."

In the light of such testimony about the personal influence of individual faculty members upon individual students at one small college, one wonders how many graduates go out from America's colleges year by year to take less needed and less satisfying jobs because no one has said to them pointedly and emphatically: "You ought to think about college teaching."

Since Stecklein and Eckert's massive study revealed (page 41) that only 49 per cent of the present practicing college teachers in Minnesota finished college with any kind of honors or special academic recognition, many of our graduates year by year who think themselves ineligible for college teaching because they have not met all their academic aspirations might be fully as capable as many successful people now in the profession.

Not all the effective counseling will be in words. Not all of it will be consciously done. Over and over, those queried in the Greenville alumni study reported that the example of a dedicated and scholarly faculty was the strongest single feature of Greenville College during their undergraduate time to inspire their going into college teaching. Since Greenville College has produced far more college teachers than her size and type would cause one to predict, the high admiration for faculty which these alumni have reported is particularly significant. If those who are now in college teaching are to reproduce vocationally after their own kind, they must be in every way what their students would wish to become.

"Greenville's teachers made such teaching attractive," is the analysis of Howard Updyke, professor of English at Roberts Wesleyan College. "Through their personal helpfulness, their evident sacrificial spirit, as well as through their knowledge of their fields, teaching as a desirable profession was magnified."

Another alumnus comments: "As a student, I felt that the faculty of Greenville led such exemplary lives that they inspired all of us. . . . The faculty were so respected that they made us feel that the calling of higher education was a goal to be aimed for. I also feel strongly that each member of the faculty made Christian education seem important. Therefore my personal goal is to follow in the footsteps of those who have helped to inspire me."

"During my five years' living in dormitories of our schools," writes another, "I was impressed with the difficulty of the task and the devotion it took to carry out the preceptor's work. Such men as Jacob Moyer influenced me. I resolved, if possible, to return to our schools an equal amount of time in the same position." ("Our schools" as used by this alumnus refers to the high schools and other colleges operated by the Free Methodist denomination.)

"While I was at Greenville," wrote Robert Franklin of the Los Angeles Pacific College staff, "Dean Quall was the spark of the school of education and as such had great influence upon me and I am sure upon many others. Professor Tade was also a dynamic, able educator of great influence."

"The faculty at G. C. was held in such high esteem it made me wish that I could be worthy of the same," is a comment of Armetta Medlock, art teacher at Seattle Pacific College.

From a member of the Spring Arbor Junior College faculty came a summary statement which would speak for many Greenville alumni: "The teaching staff at Greenville College made one want to serve in the same way."

The viewpoint of Dr. Wilson C. La Due, professor of modern languages at the college, is of particular interest because he is himself a Greenville alumnus and has been on the faculty for some twenty years. Admitting that "it's hard to analyze a spiritual and psychological 'climate,'" Dr. La Due went on: "I believe there is a climate here that encourages students to choose Christian education. I have a feeling that students frequently choose this type of teaching because of their esteem for one or more of their Greenville College teachers. I think that Greenville College teachers frequently suggest to students the need of Christian colleges for teachers and extol the advantages and solid pleasures we enjoy while teaching."

In summary then: America needs college teachers. Most undergraduates do not visualize themselves in the role of the college professor. But the reports of Greenville College alumni indicate that personal interest and personal counseling can direct qualified young people toward higher education and that professors who adorn their vocation can lead their students to wish to emulate them by becoming professors too.

DO WE WANT BIGGER AND BETTER PANTY RAIDS?

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MILLIONS of youth are heading for college today and more are on their way. That we have decided to educate the mass of youth, or at least a substantial portion of them, can no longer be doubted. Should we however create bigger and bigger universities? Lecture to thousands of students at a sitting? Pipe the lectures via TV? These are among the solutions being seriously proposed. Yet solutions such as these may undermine two of the basic characteristics of American higher education, the community spirit of the college campus and the intercommunication of faculty and students. Though we educate the masses, must we do it by mass education?

Mass Education at Foreign Universities

We can get an answer on what not to do by observing student education and frustration at certain foreign universities. In many countries the students are pitted against the faculties, living within their own horizontally segmented world and relieving their frustration and boredom by hell-raising activities. On a recent trip around the world, visiting universities, I witnessed many demonstrations of unrest and discontent. Some of these were distinctly political in nature, and we recognize that political activities have long been a favorite preoccupation of students at foreign universities. The question about them is not the fact of interest in politics but rather the mob techniques used. Other and less well known activities, however, are those of group pressures, strikes and riots within the institutions. Some of the causes, I think, have a distinct bearing upon the question I raise about our own courses of future action.

Destructive riots in Santiago de Chile, were started, somewhat innocently, by university students. On the day of my arrival there, I noticed a mob of persons moving through one of the streets attacking the buses. I was told that these were university students who were protesting a raise in bus fares. The fares had been increased because Chile had been experiencing a

steady inflation. By the third day the police became more active in trying to suppress the rioting and two persons were killed. The next day the soldiers moved in, as did also truckloads of men from the slum areas of the city. Before the riot was quelled, twenty-five persons were killed, several hundred wounded and millions of dollars of property damaged. The students at one university expressed regret at the turn of events, but it was too late to stop what they had helped to start.

The Chilean demonstration may be said to have been political in nature. In Argentina the matter at issue was an internal one. At the University of Buenos Aires I climbed the steps of a palatial building to keep an appointment with the Dean of the Faculty of Medicine. The several doors were chained and guarded by police. Finding my way into a side entrance, I soon learned the reason. In an effort to supersede the lax standards that had prevailed during the Peron regime, the faculty had determined to require a written examination for admission. The prospective students were demonstrating against the change. "The regulation is undemocratic," they said. When I asked how the faculty had communicated with the students the reasoning behind the new regulation, a professor said, "... through the daily newspapers." Sure enough, there were the fine-type, back-page formal announcements. They were in striking contrast with the glaring posters placed by the students at ten-foot intervals on the walls in the neighborhood, and with the large discussion meeting called by the students for that evening.

Among other demonstrations I witnessed was one at Waseda University in Japan. Here students were milling around the campus and picketing the American Embassy because they wanted to have cancelled an I.C.A. agreement between Waseda and the University of Michigan. It involved a plan to initiate a program in industrial engineering. The students claimed they did not want Waseda to become subservient to Michigan. In the background, however, the communists did not want the efficiency of production to be improved.

At MacKenzie University in Sao Paulo the classes were unable to begin: the students were protesting a raise in tuition made necessary by rising costs. The University of San Marcos at Lima had been closed for three months by a student strike, an

effort to influence the selection of a rector. Aligarh University, one of India's best, had previously been closed for several months because student demonstrations had led to dangerous rioting. At the University of Ceylon I saw new bulletin boards that had been slashed end to end merely because the students had not liked some announcement.

What are the reasons for these student activities? Why has the British-American tradition been so different? Why have our students behaved more responsibly? Why have they been more immune to such 'isms as Nazism and communism?

One might dismiss the subject by saying that it has been the tradition in continental-type universities for students to engage in politics. A capable student in Brazil, comparing her experiences at Paris and at Sao Paulo with a year at Wellesley, contended that the American students were indifferent and immature and were getting no realistic training for their future responsibilities as citizens. And one must recognize that student-led movements in some countries have brought educational and political reforms. The students at Cordoba, for example, secured significant reforms in the teaching; the students in South Africa (and other pressures of course) won a postponement of a governmental edict to segregate Negro, colored and Indian students. These examples *do* seem to show greater maturity than do our occasional "panty raids." There is no consistency of pattern, however. In Colombia, the university students appear to have been influential in helping to oust a dictator, but in the Middle East the demonstrations, wittingly or otherwise, are paving the way for totalitarianism. In any event, the actions are too often those of pressure groups using mob techniques rather than the rational acts that might be expected of educated persons.

Another factor undoubtedly is the force of social change. The young people are breaking through old customs. Education is a route through which to rise from a suppressed class to a prestige status. Medicine and law are favorite routes and hence the pressures on these schools. If the university seems arbitrary or the chance of failure looms large, frustrations may appear. The charge of "undemocratic" becomes understandable. In

Peru, for example, a major gulf exists between the traditions of the university and the aspirations of the students.

A related line of reasoning might be that the students have become victims of communist incitement. In some of these countries tensions run deep. This makes good potential for communists. Students find the game exciting, especially in joining the radical side. The incidents in Tokyo and Santiago were said to have been communist led. Those in Jordan and Syria may have been. At Buenos Aires one professor estimated that of 20,000 students in the medical school 2,000 were communist influenced.

We can isolate some further reasons for student frustrations. For example, these universities do not in any sense constitute a community. The limit of the responsibility of the university is to register, lecture at and examine students. In other respects the students are left adrift. With minor exceptions they arrange for their own rooms or live at home. They have little organized recreation and much of their social life is the type associated with taverns. Ask them about it and they may say they have a "whale of a time." The dissipation hang-over does not matter, since the student is not accountable to his professor until the final examination. And this only requires "bugging up" during the two preceding weeks.

An American professor teaching by exchange in Chile attempted to reach his students beyond the lecture stream. He asked his class if they would like to form a literary club. The response was quick and unexpected:

"We have no place to meet."

"Why not your rooms?"

"They are too small and they stink."

"Then let's get the University to lend us a place to meet."

"The University never does this."

The professor, imbued with the American community spirit, resolved the matter by personally subsidizing a weekly luncheon for the group. Thereafter he broached the idea of publishing a journal:

"Don't some of you feel you would like to write some articles or poetry or something and publish them?"

"That's impossible."

"Why?"

"Costs too much to publish."

"Why not ask the University to sponsor the project?"

"They never do."

One gathers that the university is cold and impersonal. The university is a means to a degree which is a means to a better occupation. In its registering and examining functions the university is an obstacle to cross.

The Different Tradition of British and American Universities

To assist us in understanding how different these universities are, we need to trace their historical roots and to show the contrast with British-American tradition.

The mold for the university in Latin America was derived from the French of the Napoleonic period. This is a regimented system, with segregated faculties, specialized study and part-time teachers. It is a machine to produce and deliver lectures and to examine students. In Latin America a "chair" is a right to give a course of lectures. Chairs are high in honor, low in pay. Most chair holders teach two or three hours a week (ninety per cent of the faculty are part time). For this purpose they commute by bus or train to the classroom building, give their lecture and then depart—to another job which is the real source of their daily living. Thus there is no opportunity for faculty-student intercommunication or for faculty-student communal life.

Japan followed the French and German systems; India, Burma and Ceylon used the British one. In each case the skeleton was taken but much of the essence was left behind. The Japanese universities educate specialists, the goal of each of whom is service with the government or with big business. The failures in admissions' examinations are high, the failures in course examinations are high and the failures to get jobs are high. Little account is taken of individual differences, motivations and prior achievements. The Japanese professor is an authority whose word may not be disputed. Japanese students do not discuss or differ—until they reach the comfortable atmosphere of the coffee house. It is the agitator in the coffee house that dares to question the professor, behind his back of course.

Thus the coffee house becomes an adjunct classroom and the agitator a teacher. Although higher education in India was fostered by the British, it was for the limited purposes of teaching western culture and preparing civil servants. A few of the colleges have the genuine English flavor. Many of the universities are building imposing campuses with substantial residential quarters and this may augur well for the future. But generally speaking, the faculties are segregated, there is little opportunity for general education, the lecture system of teaching is used but without the important follow-through in tutorials, the student-faculty ratio is double ours, and the faculty take little interest in student problems and activities.

A summary of the basic facets of foreign patterns of education shows that the contrast with the American type is marked. They call for lecturing *about* ethics but provide no laboratory situation for discovering the meanings in human conduct. They attempt discipline as mental discipline, that is through rigorous standards in examination, but get as a result last-minute memorization of lecture high-points. There is little digesting of the meaning of words; little interaction of the sort that promotes critical thinking; no dialogue for the practice of logical reasoning—in short, no growing intellectual self-discipline. A kind of discipline in conduct is pursued by occasionally expelling a student, but this sort of arbitrary discipline results in minimal observances to get by the regulations and in creating antipathies between the administrator and the administered. The dean may dismiss the individual, but if the students gang up on the dean, and parents, public and politicians get into the act, discipline becomes a matter of negotiation between opposing forces.

The history of the British university is very different from the French and German systems. While the French universities were becoming standardized and regimented and the German were going overboard for research and specialization, the English universities (which, until well into the 19th century meant Oxford and Cambridge) were turning toward intensifying the community life of faculty and students. The "college" was retained as an organic unit within the university structure and the focus of the students' activities and loyalties. Adoption of "honors" plans meant strengthening the tutorial relationship

between faculty and student. Housing was arranged to promote the feeling of belonging. The college assumed responsibility for the whole moral, physical and intellectual life of the student. "College" or "Hall" came to mean a communal group of students and masters "engaged in the pursuit of preparing liberally educated men for church and state." Not all that Oxford and Cambridge did during the late 18th and early 19th centuries was commendable, because these institutions became smug, inward-looking places by 1850, but the communal aspect of their growth is of great significance to the United States because our basic college, the liberal arts college, was designed on similar principles and our universities, for the most part, became campus institutions. This plan also follows the older tradition of the medieval university which was a guild of scholars (masters and students) studying together.

We inherited the British system and hence got the concept of a college where the student works at the elbow of his professors. We adopted some ideas from the Germans, especially their 19th-century universities which broke the bonds of the classical studies, developed richly varied programs and gave students the freedom to seek the fulfillment of their intellectual needs. We also did not hesitate to do some experimenting on our own. Our universities, stimulated by the land-grant federal legislation, began to interweave theory and practice by applying theory to agriculture, industry, the social services and government. Through these curriculums the American professors have made the abstractions of history, philosophy and science come to life. The student was not merely preparing to pass an examination: he was preparing for life.

Communication Between Faculty and Students

A distinctive phase of our education has been the direct and mature relationship between the professor and the student. Every alumnus will remember moments of inspiration and fellowship in his relations with his professors—disputing a point made by the teacher and sometimes proving him wrong; facing a demon who had given a low grade and finding him to be human, mellow and reasonable; advancing an idea which, mulled between student and teacher, grew into an individual study of

a major problem; sitting in the home of the prof, munching potato chips, and listening to his classical records or kicking an idea around. He will also recognize the characteristics that made the college a warm, friendly, inviting home for four years—the pipe-smoking professor in his study or chatting with students under the oaks; the Saturday night dances and the fall-term football rallies; the twenty or so buddies of the hall who became pals and brothers; the library browsing room with appealing books, and comfortable chairs into which one might slip next to a cute coed; the college songs that lifted one's heart and drew one's inner loyalties.

It would be difficult to attribute student frustration to one type of university and student poise and seriousness to another type, but one wonders if "belonging" to a group does not make a psychological difference. It was revealing in Chile to learn that the students are always invited to political meetings and asked to participate. Here is something to which they may belong—and pour out their feelings.

One of the significant differences between our universities and those abroad lies in our student activities and student government. I asked an official in Ceylon why he did not use student government as a means of changing attitudes and causing students to assume responsibility. His answer was that the students were not sufficiently mature (though of the same age as ours) and the authorities would not dare to give them control over such matters. But is not responsibility a skill that grows with practice? And are not the development of social attitudes and the ability to assume initiative and to carry responsibility among the primary educational aims? What do we mean by "educating for leadership" in society, if not precisely these kinds of things?

Perhaps in the United States we have been more successful than we know with student government. By comparison with most other countries, we have achieved responsive and responsible student action. Through student government, two-way communication between students and administration is provided, student interests find expression, activities are organized, pressures to counter anti-social behavior are developed, opportuni-

ties for experience in group leadership are provided and responsibilities for the community welfare are shared.

Within this frame of reference, student activities have their role to play. The sports, the glee club and chorus, the orchestra, the student paper, the dramatics club, all provide outlets for energy and contribute to growth in personality and skills for group effort.

In thus praising the American college we are talking about what it has been. This is not necessarily the same as what it will become. The question is whether we shall continue to build upon this experience and tradition or whether we may create conditions that will change the character of our education.

In this connection we must consider the social change that has been separating our children into horizontally segregated layers. Nostalgically we may think of the American boy as working with his father on the farm, or his uncle in the shop, sitting with the family in church and attending a little red school house with kids of all ages in one room. Actually, Johnny goes to school with a graded age group, runs with his age gang on weekends, and each evening sits for hours with his eyes glued on TV programs especially tuned to his group. These age layers run, only one or two years deep, clear into the college period. What are we doing to our boys and girls when we thus box them off by themselves, cutting the chain of communication and guided experience from father to son and from adult to youth?

Now we are projecting plans that may create an age cleavage on the college level. For such is apt to be the result of putting tens of thousands of immediately post-adolescent boys and girls on a single university campus. Shall we erect hotel-like dormitories to house them? Shall we lecture at a thousand faces at a sitting? Shall we pipe lectures by television? Shall we have libraries where students stand in line for books, or laboratories where ten students use a microscope or five share a station? Shall we have student governments where the chance of leadership is only one in a thousand, or dramatics where the chance for a lead is one in five hundred? Assuming that the trend of much thinking is of this nature, what frustrations in the students' minds shall we be creating?

Solutions in Line with Our Best Traditions

As a basis for posing some solutions of the problem of providing for increasing numbers of students, let us note some principles of education:

1. A college or university should be more than a composite of experts, however learned they may be. It should be a community of people, some more knowledgeable than others, gathered together to learn.

2. Each boy or girl of 17-22 needs to feel a sense of belonging. If a boy does not find companions, intellectual as well as beer-drinking, female as well as male, adult as well as adolescent, within the institution, he will seek them elsewhere. And these companions will be his teachers too. "Belonging" also means developing loyalties to something bigger than oneself.

3. Each student needs recognition for his individual merit, both to do him justice—because if education occurs at all it must occur within him—and to lift his spirit. He should feel that he is something more to the professor than a face in a sea of faces. A pat on the back is more conducive to effort and learning than is a sharp word. But the pat cannot be given unless the student is a personality to the professor. Nor is it apt to be deserved unless the professor is stimulating the student to learn.

4. The differences among individuals increase as age increases, and this from earliest childhood. So says recent research. Learning differs for individuals, and so we need to diversify our programs and our methods of education. The occupational and interest outlets for educated men also become more varied as society becomes more complex, and this too requires diversity in programs.

5. Education is a process of passing wisdom from generation to generation. The means is not a funnel through which information is poured from an older mouth into a young ear. Bridges of intercommunication and interaction must be built—as many as possible. Learning also does not become wisdom until it has been tested and tempered by experience; hence outlets for experience need to be provided.

It is apparent from these principles that the personal factor in education is of the greatest significance. Our aim, then, should

be to preserve this factor. This, in my judgment, requires a decentralization of programs and facilities. The most essential step in this direction is the creation of new institutions rather than making big ones bigger. Our universities are going mad with the illusion that size is a measure of greatness. The University of Buenos Aires has 71,000 registrations and it will take decades to overcome the effect of the quantity standards of the Peron period.

The most obvious way to create new colleges is to increase the number of two-year community colleges. These institutions have been through the pilot-plant stage of experimentation and are a genuine success. By catering to students near their homes they help prevent the piling up of youth in educational centers. In California, where two-year colleges have become prevalent, seventy per cent of the students in the first two years of public institutions are enrolled in these colleges.

Another way to decentralize is to utilize more fully the several hundred smaller colleges that already exist, but many of which are not being used to capacity.

Still another possibility is to decentralize within the larger universities. The aim should be to provide natural groupings of students that will be smaller, more intimate and more closely in touch with particular faculties. The Harvard-Yale house plans may be one way. Or the larger college units may be split into two or more smaller ones—why should not a university have several liberal arts units (as in the Claremont plan) rather than just one? Or college units (with self-sustaining faculties as distinguished from branches) may be placed in other cities, this being feasible today because of the ease of communication.

To carry out the idea of decentralization it is necessary to do some planning on a statewide or regional basis. The result should be that the system as a whole offers the required opportunities but particular institutions do not have to serve every person and every need. Also the programs of the institutions of high quality and advanced work need recognition as a matter of public policy, so that they will receive sufficient support. The alternative, competition for size, on the assumption that this leads to larger appropriations of funds or of gifts carries with it the seeds of degeneration to the lowest common denominator.

In addition to these moves, the colleges and universities can take many precautions to insure that they will educate soundly and thus avoid student frustrations. First, they should maintain integrity in education. They can review their purposes and insist that their role is quality performance, or character formation, or preparation for advanced study and research—and they can determine their optimum size and select their students accordingly (unless compelled otherwise by law). The colleges need to see that the national problem and the institutional problem are not necessarily identical.

They can also emphasize skillful and colorful teaching. The more students we get, the more important this becomes. If it becomes necessary to handle larger groups in the classroom (and it probably will), this is not an occasion to shift wholly to mass lecturing. Lectures, yes, but followed through with opportunities for discussion and individual projects.

Much has been said about the shortage of teachers and it will be acute. But not enough has been said about its being temporary. The shortage will last, presumably, from the entrance of the war babies into college until the flow of Ph.D.'s and M.A.'s has caught up. In the meantime we should avoid rationalizing mass methods of education lest we permanently alter the character of our institutions and undermine their standards.

Secondly, the colleges need to make certain that they are doing an adequate job of counseling their young people. The student should be assisted in getting a good understanding of his aptitudes and achievements and of the opportunities that lie before him. Data about the characteristics and interests of the students are valuable to the teacher who senses the need to individualize the process of learning.

A phase of this friendly counseling is to lend a guiding hand to the leaders that emerge within the group. What kind of training shall we give them while they are experiencing this leadership? Shall we take a hands-off attitude and let them emulate whom they will? The "Big Men on Campus," in spite of their local prominence, are still youths, still in their formative years. Do we not then have unusual opportunity to give positive direction to the molding of their purposes and their practices, and in a manner that will carry over into later life? I do not under-

rate the difficulty of the task—the tact, the right degree of permissiveness, the man-to-man relationship, the perpetually open door for consultations, the mulling over of mistakes to extract the lessons from them, the relating of general education to the art of living—but is not this too teaching of a significant sort?

In the third place, we need to do a better job of general education. General education is the flux that helps to weld the diverse programs together; it is the cultural background required by everyone for common citizenship; it provides the perspective in working toward evolutionary progress; it is the proving ground of ideas and values that enable intelligent men to communicate with one another and hence work together.

Finally, let us think twice before we lose or adulterate too much the community life that has been such a unique characteristic of our colleges. The small institutions need not worry, for informal relations and personal contact are their forte. At the larger ones we can make certain that faces also have names; we can reorganize our benched recitation halls to facilitate group interplay; we can guide extracurricular activities to make them both socially congenial and educative; we can revise our libraries to bring the books close to the students who use them, and let them help themselves; we can subdivide college units as they become large; we can persuade faculty to speak to students as they meet on the campus. No amount of administrative mechanics, however, will do the whole job. What is desired is a contagion of spirit that pervades the atmosphere.

The issue before us—shall we educate the mass of youth by mass education methods?—is a serious one requiring the attention both of the educator and of those who finance education. We Americans are efficiency-minded and economy-minded. It would be easy to persuade ourselves that because we have found mass-production methods efficient and economical in industry, we should resort to them in higher education. But the human being is not a machine, and the education of each individual is an experience that is unique to him.

TO KNOW, TO THINK, TO BECOME

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AT a meeting held on 11 May 1936, the faculty of the College of Liberal Arts of Miami University gave approval to a statement of purpose which included the following passage:

All clear and logical thinking must be based on data. When premises are false, conclusions will be erroneous. The scientist, the philosopher of history, the critic, the artist, the statesman must base their judgments on the facts of experience and actuality. To put the student in possession of the general backgrounds of human experience is to help him to think clearly, to reason logically, and to behave honestly in the face of facts as they are; and is to help him to envision with sanity and purpose things as they ought to be.

It is in this sense that broadmindedness and magnanimity are essential to the seers of all ages, and that taste and culture are not esoteric but social possessions. A respectful familiarity with the recognized classics, an interest in and some knowledge of the fine arts, a working knowledge of the facts of history, a reasonably clear understanding of the evolution of the fundamental institutions of society, an ability to communicate ideas to others in clear, vigorous English, a capacity for reading with profit and pleasure the better magazines and books of one's day, a comprehension of some of the implications involved in the subject-matter of modern science—these and others like them, are the most practical of all possessions.

Our men feel strongly that the pattern of the students' intellectual and social conduct is precisely the thing that they should be influencing, and they fear that if they fail, Cab Calloway's Band will eventually supplant the Philadelphia Symphony, and *True Confessions* will elbow the *Atlantic Monthly* from the libraries, as it has already done from the newsstands.

Our men feel strongly that one best participates in the activities of society by exercising intelligence and imagination and will. They do not feel that to educate with the immediate and the practical, the here and the now always foremost is to be fair either to the present or the future. Education for society, they say, must not be to open our door to the world, to accept the world's standards as our standards, or its values as our values. It is the privilege

and the responsibility of the college to serve the world, but to do so by being better than the world.

They believe in the unity of knowledge, in the abundant life, and in the high part that education must play in the preservation of those things that are good and in the creation of better things to replace those parts that are cheap or unjust or effete. Although they are humble enough to admit that they do not know at all times *what* they should teach their students to think, they are convinced that they can give them things to think about, and are resolved to help them to use discrimination in their choices.

To me this statement seems as valid today as it did 22 years ago. It is saying that it is our function to help the student *to know, to think and to become*. Its implications are unmistakable as to how we would like him to think and what we would like him to become. I propose to examine anew these same articles of purpose and faith.

If it be true, as the statement suggested, that an important end of liberal education is to teach the student to know and to think, the dean and the members of his faculty must have a primary concern with ways by which this can be accomplished.

A faculty man cannot be of greatest assistance to the individual student if he does not in some way come to know something of the mental processes and capacities of the person concerned. Some courses lend themselves readily to this. The freshman English instructor, for instance, who reads and evaluates the compositions of students and who has conferences about them, is in an advantageous position by the very nature of the relationship. The professor who requires written reports, term papers and essay examinations learns much of the workings of his students' minds. I am decidedly uneasy however about the student in a class where there is little if any discussion, where the subject matter of the course or the temperament of the instructor are not conducive to conferences, and where the examinations are objective in type. It is difficult to see how in such circumstances the instructor can evaluate the quality of a given mind. He may give the student plenty of facts to memorize and indeed plenty of things to think about, but checks on a printed or mimeographed sheet cannot reveal to him the penetrating or the superficial thinking that is taking place. Unless there is provision for conversation or composition, how does the instructor

know whether the thinking of a student is fatuous or solid, fallacious or accurate, slovenly or precise. And if he does not know these things, how does he know that the student is thinking rather than remembering? Neither Socrates nor Mark Hopkins did the student's thinking for him vicariously.

When I express a mistrust of the exclusive use of objective tests, I am not casting aspersions on the acquisition of facts. For thinking that is based on inadequate or inaccurate data is certain to be untrustworthy. The student needs to learn that he is an intellectual niggler if he does not accumulate facts and an intellectual fool if he does not respect them. A mother is almost certain to know something about gravity, whether she learned it by experience or from a book; and who would absolve her from blame if she made no attempt to retrieve her inexperienced toddler who was balanced on the edge of a rocky cliff?

This suggests that facts are not useful *per se* but as they are used. It is one thing to know that 1776 is the date of the Declaration of Independence, that Woodrow Wilson was inaugurated in 1913, that NaCl is the formula for common salt and that music written in the key of G has one sharp in its signature. Facts of this sort are valuable and may, if stored in one's memory, be a convenient possession. But unless they promote or support thinking they have little intrinsic value—except on a TV giveaway program. It is quite another matter to know Gresham's Law or Newton's theories; the difference between the romantic and the classical temperament; the possible implications of the Dead Sea scrolls; the ideas associated with Darwin, Mendel and Malthus; the distinguishing features of materialism and idealism. To be sure, even a knowledge of these may remain in the realm of definition and rote, but it is likely to carry the possessor on to comparison and evaluation. And this is where "knowing" and "thinking" begin to converge.

It would be utterly impossible to draw up a definitive list of the facts that would be convenient and useful. These vary from person to person and from situation to situation. Likewise it would be preposterous to attempt a catalogue of all the thoughts that an educated man should think. One can generalize, concerning the attitudes and points of view that are likely to be characteristic of the liberated mind, and can suggest a few pro-

hibitions and procedures to the teacher who is to have a part in that liberation.

During the formative years the individual will usually change whether he is in college or not. The supposition is, however, that by going to college a young man will change more rapidly and advantageously than if he did not have academic experience. The college that he attends exists to make him aware of his intellectual innocence and to promote in him an enlargement of vision and purpose. To say this is not to imply that educational institutions exist primarily to startle or that susceptible freshmen thrive best on shock. But the shift from pristine naivete and circumscribing concepts to the disconcerting revelations of geology, biology, psychology, philosophy and religion is as salutary as it is painful. The seemingly comfortable and protected years of college may be years of agony and danger. Growing up physically is a hazardous performance, and the posture and strength that are acquired will have much to do with the vitality of the man. The process of intellectual and spiritual maturation is a critical one. If it is arrested or perverted, the results may be tragic.

It is just here, it seems to me, that the role and the responsibility of the teacher take on special significance. It is both the right and the duty of the teacher to present truth—the whole truth—as he sees it. But truth that makes men free is broad. It is in no wise synonymous with indoctrination. It cannot be partisan or colloquial. Adherence to it must not be unreasoned or merely emotional. It is wholly inconsistent with distortion and sophistry.

Truth that is untrammelled may be disquieting, disconcerting, exciting, even explosive. It can readily disarrange predilections and shatter preconceptions. This is its nature and its glory. The student who is denied its disturbing spell is being deprived of his birthright. If he is so complacent that he feels no twinges, if he is so infatuated with his ignorance that his mind is closed to all enlightenment, he is in a lamentable predicament. If he is receptive and amenable, he may be thrown into utter confusion—but with good fortune he may be guided into a constructive readjustment.

The teacher who takes a sadistic delight in upsetting the boat

and throwing the young hopefuls into the waters of confusion is not likely to be very helpful. His saucy disregard for feelings and his attitudes toward conformity may indeed be symptomatic of his own insecurity. And if he creates another image of himself, there will be two cynics instead of one. Rebellion and disbelief as abstractions are hollow. Intellectual arrogance is hardly a worthy end in itself.

Of course the vital teacher will challenge accumulated notions and will do his best to effect a rebirth or conversion. But he will do it in ways that are ultimately constructive. He will not leave the disturbed one permanently in the morass of confusion. To say this is not to suggest that the teacher should take each student by the hand and lead him safely across every crevasse of doubt. He will point out ways of escape, he will present choices and points of view, and above all he will stimulate the student to think and to attempt his own salvation.

Having equipped the student with the facts that he needs to know, having given him a rigorous discipline in how to think, and having pointed out to him the choices that are his and their respective implications, the teacher will have to trust to the future. In many cases the student will still be groping for a sustaining philosophy when he is graduated. This does not mean that he is lost. The important thing is that he is a seeker and that his thinking is straightforward and sincere. One cannot expect that all humanists and all scientists will arrive at exactly the same conclusions. Indeed complacency bred of conformity is less seminal than is unrest born of nonconformity. Let me make it clear, moreover, that I am in no wise suggesting that the teacher turn moralist or evangelist. The classroom is no place for the bigot. It is a forum for open-mindedness, a battlefield for intellectual skirmishes, a crucible in which the white fire of truth can refine and amalgamate, a proving ground where the discipline that goes with accuracy can be learned.

It is no contradiction of what I have just said to add that the classroom should not be so antiseptic that all that the student could catch in it would be open-mindedness. Intellectual toleration is an asset but it is not to be worshipped as an end in itself. Toleration is commendable but there are times when impatience is more virtuous. Although the teacher must be meticulously

fair, he can be preferential without being doctrinaire. The books that have been of greatest influence to mankind have been clear and committed. The teachers who have been most successful in helping students "to become" have been unequivocal and formative.

All classrooms have much in common. Each in its own way, and within limits germane to its subject matter, should be a purveyor of values—and these are many. The academic disciplines do not stress the same values with equal intensity. But taken together they should invest the student with a sense of orderliness, a respect for all sincere points of view, a taste for the good and the beautiful, a belief in the brotherhood of man, a passion for freedom and a conviction that to live helpfully is the surest way to happiness. On the way to these convictions the student may flounder in doubt and wrestle with unbelief, but if his sense of values is strong his recovery is almost certain.

If our teachers are convinced that education should not be homogenized, that liberal education is difficult, that the objective of liberal education is to cause students to know and to think, and that taste and a sturdy sense of values are not esoteric but social assets, those who are graduated can be trusted with the preservation of our democratic and moral standards.

A graduate who is besotted with self-interest; who places security above service; who equates the comforts of life with the good life; who scoffs at morality and eschews religion; who is infatuated more with the carnal joys of the flesh than he is with the stimulating exercise of the mind; who lives for financial competence rather than for personal growth; who is a conforming slave rather than a divine innovator; who prefers things to ideas and amusement to cerebration; whose tastes lead him to baubles rather than books, to skits rather than symphonies, to the mundane rather than the masterful; who is cynical rather than constructively critical; whose sense of values is infantile or in wintry hibernation—such a graduate of a liberal arts college should be an anomaly.

The persons who can do most to save the student from the world and from his lesser self are his teachers. The ways in which they do this may be indirect and subtle, but they are intentional and conscious. It is a *sine qua non* of the profession

that good teachers will teach their specific subjects with zest and vigor. As they do this, the best of them will immunize their students against anti-intellectualism and materialisms and will infect them with the compelling germs of scholarship, moral commitment, intellectual integrity, good will and a deferential regard for those fruits of the spirit that have come from man at his creative best.

After many years of deaning, and more years of teaching, and still more years of reading, I am increasingly certain that salvation is more important than security and that ideas are more potent than bombs. To be sure, we want our graduates to be competent and even prosperous in their professions and trades. To help them we must continue to teach them in fields that are sometimes restricted and limited. But we dare not forget the breadth for which liberal education stands. When a graduate ceases to think about life and time, space and eternity, values and happiness, goodness and beauty, freedom and responsibility, it may be legitimately assumed that education has miscarried.

As teachers, it is our responsibility and our privilege to see to it that such apostasy is kept to a minimum.

A PRELIMINARY STUDY ON THE UTILIZATION OF PART-TIME TEACHERS

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COLLEGE administrators and interested teachers have been doing a great deal of thinking about how their college or university can obtain and hold competent teachers in the numbers needed to serve their steadily expanding enrolments. This teacher problem has been called the most "baffling of all the complex questions facing administrative officials today."¹ Many institutions are already feeling sharp competition for the men and women they most want as members of their instructional staff. If this competition increases as predicted, it is apparent that the number of persons with high-level skills and comprehensive preparation cannot equal the demand. Business and industry will in many ways find their recruitment problems slightly more difficult, while colleges and universities may well find them almost impossible. Several methods have been proposed to alleviate the predicted shortage, including the recruitment of more women as college teachers, an effective recruiting program for graduate schools and the utilization of part-time teachers. It is to this last answer that this paper is devoted.

In January 1957 there were 39,119 part-time teachers in the service of the 829 institutions reported in a survey conducted by the National Education Association.² More than half of these were employed in non-public universities. Probably the majority of these part-time teachers were graduate students, but many of them, especially in the smaller non-public colleges or the large urban universities, were obviously drawn from other sources. The part-time teacher who is not a graduate student seems on the surface to be the most readily available source for possible faculty expansion. One of the chief difficulties with the effective utilization of this source is that very little study or investigation has been made on the use of these part-time teachers.

¹ "Teacher Supply and Demand in Colleges and Universities 1955-56 and 1956-57," a study conducted by the Research Division of the National Education Association of the U. S., 1957, p. 7.

² *Ibid.*, p. 35.

In order to overcome this the Ford Foundation has already been active in the field and the University of Bridgeport has been given a grant to carry out a pilot study on the use of part-time teachers drawn from business and industry. This is a big forward step. Additional valuable information on the subject may come from a detailed study of an institution with long experience in the use of part-time teachers drawn from the community. Hence this present study. It is based on an unnamed school with a long-time experience (over thirty years) in the use of part-time faculty. The school is located in one of the larger northern cities. I shall not identify the institution but its experience, I believe, is representative of many other schools. The study is restricted to the various undergraduate divisions of the school, both day and night, and does not include any of its graduate faculties. The survey was conducted by mail but was supplemented by many on-the-spot interviews and numerous visits to the school for consultation with various officials.

According to the information gathered by NEA the ratio in all the reporting institutions of full-time to part-time faculty was 2.5 to 1.³ If this is the case, the school under study was not exactly average since it had considerably fewer full-time than part-time teachers.⁴ With such large numbers of part-

³ *Ibid.*, p. 36. The following ratios were given:

<i>Type of Institution</i>	<i>Ratio of full to part time</i>
State universities	3.8 to 1
Nonpublic universities	1.1 to 1
Municipal universities	1.4 to 1
Land-grant colleges	5.4 to 1
State colleges	8.2 to 1
Teachers colleges	8.7 to 1
Nonpublic colleges by enrolment	
1,000 and over	3.6 to 1
500 to 999	4.2 to 1
under 500	3.3 to 1
All institutions	2.5 to 1

⁴ The ratio of course varies considerably from term to term. Some, for example, might be hired for the first term and not for the second or third, or vice versa. According to information available to me there were 213 part-time faculty members in January 1958.

time teachers employed, a survey of the attitudes of both part-time teachers themselves and departmental and divisional heads may serve as a guide for other colleges or universities faced with an expected teacher shortage. Additional surveys of the attitudes and recommendations of the full-time faculty and even of the student body would also be helpful, but these were not included in the following study. Also excluded were the views of the chief administrative officers of the school. These last were deliberately omitted in order to make the institution less easy to identify.

Questionnaires were sent to 206 of the 213 part-time teachers. The other seven were not sent questionnaires because their addresses were not readily available to me. Of those addressed, 110 returned an answer or some 53 per cent. Answers were received from every undergraduate division and department within the school. Another questionnaire was sent to some 35 departmental and divisional administrators. Some 21 of these were returned or 60 per cent. In this latter enquiry, the answers represent an almost complete return, since where questionnaires were sent to both the assistant departmental or divisional head and the head or former head, only one of them filled out the form. There were some administrators opposed to the survey and two refused to answer even after additional requests. With these qualifications, I feel the returns are representative of both the administrators and the part-time teachers.

What sort of people teach part time? The overwhelming majority have some type of advanced degree and a surprising number, 22, or 20 per cent, had had previous teaching experience on the college level. In most cases however this had been as a graduate assistant. Returns were received from:

<i>Degree</i>	<i>Number</i>
Ph.D.	6
M.D.	1
D. Ed.	3
M.A.	34
M.S.	5
M. Litt.	6
M.S. in Ed.	16
LL.B.	5
M. Soc. Work	2

<i>Degree</i>	<i>Number</i>
M. Sacred Mus.	1
B.A.	5
B.S.	8
B.S. in B.A.	7
B.S. in Eng.	3
B.S. in Ed.	4
No degree	4

Of those returning questionnaires some 35 (31.8 per cent) were women. On the whole they were somewhat better qualified academically than their male counterparts.

Most of the part-time faculty did other work in addition to their teaching.

Do not work	23 (20.9 per cent)
Work under 20 hours	2 (1.8 per cent)
“ 21 to 39 “	8 (7.3 per cent)
“ 40 to 48 “	54 (49.1 per cent)
“ over 48 “	12 (10.9 per cent)
No reply	11

Their jobs were varied but the bulk fall under the following classifications: housewives, retired teachers and professionals, high school teachers, staff people in various social agencies, lawyers and business and industrial personnel on the management level.

Administrators were asked to indicate possible sources of recruitment for part-time teachers. Their answers of course varied with the department. Since the school has utilized part-time teachers for a long period many department heads have a long list of people who would like to teach part time. Their job is not in finding personnel but in finding the right person. Others indicated that they are well acquainted with the people in the community who have the desired specialty and that they seek such people out when they need them. Still others indicated that they usually seek high school teachers with master's degrees or housewives with previous teaching experience who are not now teaching. One department head said that he scans the Board of Education rolls for teachers who have left the field but who may want a part-time position. A valuable source is the spouse of the full-time faculty member. A surprising number of faculty wives (or in some cases husbands) have advanced

degrees or specialized training that makes them a valuable addition to the faculty. Another source of recruitment for some departments is the various administrative personnel in the professional agencies of the community.

In some departments the recruitment problem is apparently more difficult. One part-time teacher with previous college teaching experience and considerable professional experience indicated that he was persistently badgered by a department head with requests to teach because qualified personnel were desperately needed. Another indicated that he had been hired on a week's notice without being interviewed by the department head to determine if he was qualified to teach the course and that he did not meet his chairman until after he had taught it.

This would seem to indicate that in some fields the finding of part-time teachers is much easier than in others, with the technical and business divisions of the school having a somewhat easier time than the liberal arts. In most cases it is much more difficult to get part-time teachers for the day school, which accounts in part for the greater number employed in the night school.

The turnover rate for the part-time faculty is comparatively low, with a surprising 21.8 per cent (24 individuals) having taught at the school for over ten years.

<i>Years of Service</i>	<i>Number</i>	<i>Percentage</i>
0-2	43	39.1
over 2-5	17	15.5
over 5-10	20	18.2
over 10	24	21.8
no answer	6	

Almost all the departmental administrators indicated that the part-time faculty were conscientious in meeting their classes and that absenteeism was not a problem.

A good university is, at least in my estimation, a community of scholars. How does the part-time teacher fit into this concept of university life? What constitutes scholarship is somewhat debatable. One mark of a scholar is of course training towards or the achievement of an advanced degree. On the basis of my sample, the great majority of the part-time faculty at the school under study would fill this requirement at least partially.

In cases where the most advanced degree has not yet been achieved, a sign of scholarship would be the desire to continue training towards such a degree. Here the part-time faculty were not so well qualified. The majority, some 70 per cent, indicated that they did not want or intend to get another degree. A smaller percentage indicated that their teaching experience had motivated them to seek another degree and that they had either received such a degree or started to work on one since they had been teaching. One individual indicated that he very much wanted to continue his schooling but that part-time teaching took up too much time.

Another mark of scholarship might be a continuing desire to learn regardless of formal training or education. This is a rather intangible aspect to measure, but when questioned most of the part-time faculty indicated that this was one of their reasons for teaching. Other marks of scholarship might include the desire to communicate what one knows through publication or to increase this knowledge by original research. Twenty part-time faculty members (18.2 per cent) stated that they had written at least one article that could be called scholarly. No effort was made to find the nature of their publications but a few had even published books in their field. The overwhelming majority had done no original research.

A desire to keep abreast of happenings in one's own field is another indication of scholarship. This is again rather difficult to measure objectively. In their own estimation the part-time faculty ranked themselves on the whole with the full-time faculty. Twenty (18.2 per cent) of the part-time faculty felt that they were much more knowledgeable about developments in their own field than were the full-time faculty members in their departments, while another 46 (41.8 per cent) felt that they were at least as well informed as the full-time faculty. The others either felt that they could not keep up as well or had no opinion.

It is perhaps significant that the people who ranked themselves more qualified than the full-time teachers came for the most part from the business school and the more technical departments of the institution. On the whole these were the people who degree-wise were the least qualified, who had the fewest publi-

cations and who had the least desire to continue their schooling. This same group also tended to think that the part-time teacher did a better classroom job than the full-time instructor. Twenty-five (22.7 per cent) thought the part-time teacher did better than the full-time one, while another 58 (52.7 per cent) thought they did as well. Thirteen (11.8 per cent) thought the student received *less* effective instruction, and eleven (10 per cent) had no opinion.

Such attitudes were strongly reinforced by comments:

I believe that part-time teachers bring some very valuable practical experience into the theoretical presentation. Also very competent people, who can earn more than the teacher give part-time instruction as more or less of a public service.

or

Good instruction can be given in . . . by men and women who are actively engaged in the business. . . . Full-time faculty members tend to become 'ivory tower' in this field which moves so fast.

. . . a teacher with a wide practical experience is a better teacher because he knows from experience what students should know when going into [the] business world, because he knows little important details that a regular teacher has never comprehended.

It is the average business man who makes new rules and business axioms that appear in textbooks after a three to five year lag.

The part-time instructor, that [sic] is active in his field, brings with him information much more current than textbook material. Often the approach is closer to reality than theory. . . . The new developments come from the field and are published only after widespread use makes it necessary that newcomers be educated in these new developments.

Occasionally there were some qualifications such as "not all well qualified experts can teach effectively," but such comments appeared all too rarely. This lack of communication, for that is what I feel it is, is probably the most difficult problem in the use of the part-time teacher. I will say more on this later.

Normal load for a full-time faculty member at the institution under study is fifteen hours or five three-hour courses. Following is the load of the part-time teachers:

<i>Number of courses</i>	<i>Number teaching</i>	<i>Percentage</i>
1 (3 hours)	42	38.2
2	47	42.7
3-4	13	11.8
5 or more	5	4.5

The minimum load of most of the part-time faculty, some 72.7 per cent (or 80 members), has been under four hours. Another 30 per cent (33 individuals) have never taught less than between five to nine semester hours, and two part-time faculty members (1.8 per cent) have always taught more than nine hours. Maximum load for the majority, 59 (53.6 per cent) has been under seven hours, but ten (9.1 per cent) have taught a maximum of fifteen hours or more, while the remainder has taught at most between eight and twelve hours.

Most of the part-time teachers claimed to spend a large part of their spare time in class preparation. Only 11.8 per cent (thirteen) admitted to spending less than one hour for each class hour. Another 36.4 per cent (40 individuals) said they spent at least an hour in preparation, while some 35.5 per cent (39 individuals) claimed they spent from an hour and a half to two and a half hours and twelve (10.9 per cent) claimed more than three hours' preparation for each class hour.

Part-time faculty members at the school under study are paid on a considerably lower scale than a full-time teacher. In fact, on the average, approximately 36 hours of part-time teaching costs the same (as far as salary is concerned) as fifteen hours from a full-time faculty member. Perhaps because of this, only 15.5 per cent of the part-time faculty thought they were being adequately compensated. Another 24.5 per cent thought they should be given a fifty per cent raise, 19.1 per cent thought their wages should be doubled, and 10 per cent thought they should be more than doubled. The remainder either had no opinion or did not want to commit themselves. Interestingly, the most serious objections to the salary range were voiced in the liberal arts departments and the least in the business schools.

While the salary is of little importance to me personally, in so far as it makes "scabs" of us part-time teachers I resent the low pay.

I think we do enjoy a certain prestige as university teachers but if the general public ever found out what we are paid I fear they would lose what respect they feel. . . .

If he is a good teacher worthy of being hired on a college faculty, it is presumed he is worthy of the same hire [pay?].

One especially concerned person wrote:

The chief comment I have to make concerns the salary offered part-time faculty members. In order to teach one course, meeting two times per week, I hire baby sitters, which unskilled work commands $\frac{1}{3}$ to $\frac{1}{2}$ the amount which I earn after $6\frac{1}{2}$ years' college work and six (full-time) years of college teaching. When transportation costs are added and income tax and other deductions are made, I rarely break even financially. The rate at which my unskilled help is paid actually about equals the rate at which I am paid, if you include time I spend in preparation and paper grading. I conclude that financially I would be better off in baby sitting or domestic work.

If money is not the main motivation, although I feel that from the answers of the part-time faculty members it is much more important than they care to admit, why do they teach?

Teaching has forced me to re-learn at the 1958 level, the exact explanation of many things which I took for granted that I knew. It also has opened my eyes to some of the deficiencies of the pre-college education of the students . . . to the point that I feel I can give some constructive suggestions to grade and high school level educators.

. . . to help establish the department for the growth of the profession [since the] need for these professional people is acute in this area.

Little satisfaction is gained in the business world from the standpoint of helping others. The joy of watching a student who stumbles at the beginning grow to a higher level in any class, compensates for the evening's work and the small inconveniences connected therewith.

Part-time teachers also serve as a source for the recruitment of full-time teachers, and some 47.3 per cent indicated they would join the full-time faculty if invited to do so. Fewer people in the liberal arts departments would join than in the business and technical divisions or departments. Some would join for as little as \$4000 a year but most would demand be-

tween \$6000 and \$8000 as a starting salary, which is higher than the present range of starting salaries at the school.

Alongside this information, which is admittedly subjective on the part of the faculty surveyed, what do department heads feel about their part-time faculty? It is apparent that part-time faculty increase the work loads of the administrators and to some extent even of the full-time faculty, since committee work, counseling, and other non-teaching duties are mainly carried on by the regular faculty. Just keeping track of the part-time faculty increases the work load, and in some of the departments in the business or technical divisions, where the part-time members greatly outnumber the full-time, this becomes a very serious problem.

Most administrative heads indicated that they would prefer to hire only full-time people if budgetary allotments permitted them to do so, but a strong minority (one third in fact) indicated that they would keep at least some part-timers. If money were available to appoint some of the part-time people as full-time, most of the administrative heads would actively consider only about half of their present part-time faculty for such positions. Generally they thought that their part-time teachers were inferior to the full-time faculty (a rating that differs considerably from that of the part-time teacher himself). Such a rating however should be qualified, since the department heads themselves felt that the comparison was somewhat unfair. They preferred to compare part-time teachers with graduate assistants who do part-time teaching, and here over 85 per cent of the administrators thought that the part-time teacher from the community was a better teacher than the graduate student. One chairman suggested that "most of the answers on this will be based largely on imagination" since he himself had no real basis for comparing classroom performance. Nevertheless he felt that part-time teachers from the community would put more into classroom preparation and teaching than would a graduate assistant.

Can part-time faculty drawn from the community help solve the predicted teaching shortage? Some 42.9 per cent of the administrators would recommend their use by other institutions, but with many qualifications, while 33.3 per cent would *not* rec-

commend them, but again with qualifications. The remainder would not commit themselves. In trying to come up with some conclusions for this preliminary survey I have attempted to take this rather ambiguous feeling of the administrators into account by meeting their objections or qualifications. My own view after this survey is that part-time faculty could be used effectively if the following conditions were met.

1. I would recommend that when and if part-time people are used that they should not outnumber the full-time teachers in the department. In my survey I found that most dissatisfaction and misunderstanding of the purposes of an institution of higher learning and its faculty came from those departments in which the part-time personnel greatly outnumbered the full-time faculty. Where a large number of part-time teachers are employed, department heads are not able to exercise the supervision they do where there are fewer. They are also unable to maintain a feeling of contact with the part-time faculty which, perhaps more than supervision, is the key to a good department. In such a situation it becomes easy for a person to feel as one teacher did:

The part-time faculty are almost stepchildren in every respect—privileges, prestige, contacts with other faculty members, social affairs.

Many part-time teachers themselves thought that to have too many part-time teachers was not good:

There is one comment I feel I should make that did not appear in the questionnaire: I do feel that there are too many part-time teachers and that as a result we lose a feeling of unity. . . . If there were more full-time instructors teaching evening classes we might have a carry-over of [this] . . . in the evening school in general.

2. I would also recommend that part-time teachers teach not much more than half a full-time load. The greatest satisfaction with part-time teaching was expressed by teachers whose load did not exceed six hours or slightly more than one third of the normal full-time load. It was those who taught more than this who had the most complaints:

Since I am considered a full-time instructor except on payday, I am mainly concerned at the present with getting a wage equal to that of the full-time . . . instructors with the same amount of training that I have.

These are the people who feel the lack of inequality with the full-time faculty.

3. Where part-time people are used, effective efforts should be made to integrate them into the activities of the full-time faculty. This might be done by paying them extra to assume some of the responsibilities of the full-time faculty member such as counseling, committee work, curriculum planning and so on which are necessary to the functioning of a school. This would make the part-time faculty feel a real part of the school and at the same time give them contact with the regular faculty members. It might thus serve to raise the estimation of one for the other. As one administrator stated:

A faculty member is a great deal more than a classroom teacher. Classroom teaching is about the only function part-time teachers perform; thus, they obviously contribute a great deal less to the work of the department than do full-time members. In addition part-time people generally have comparatively little contact with the regular members of the department, and they contribute little to a highly important community of interest and *esprit de corps*.

Such action would help to maintain an academic atmosphere, which is somewhat more difficult where part-time teachers are used. Another department head stated:

... part-time teachers, by their mere presence as such detract from the academic atmosphere, and that atmosphere is an integral part of what a university provides its students.

4. It would also help if part-time people could be given some sort of reward for jobs well done. While they should not be given tenure, they might be awarded some increments in pay and perhaps in rank after specified periods on the faculty or after notable scholarly accomplishments. As one part-time teacher said:

I feel that the university is taking advantage of the conscientious part-time teacher. It makes no effort to reward him for his loyalty and length of service, discriminates in terms of pay and does not care as to the quality of his work, his preparation or his interest. I know of part-timers who teach well only because they feel a sense of responsibility to the members of their class. This has nothing to do with salaries or the attitude of the administration.

If this is done, hiring procedures for part-time people should be the same as for the regular faculty.

I think it is apparent that where there are large freshmen enrolments and very few graduate students, part-time teachers from the community become almost a necessity. Part-time teachers can do both good and bad jobs; as one respondent said: "the better ones do a better job, a few decidedly worse. A good many, I can not say." If the coming teacher shortage materializes on the collegiate level, many more presidents might well consider the limited use of part-time teachers. They can make a valuable addition to a faculty, especially, I believe, if the above recommendations are followed.

COLLEGE TRAINING AND THE MARRIED STUDENT

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MARRIAGE and college training are linked today in closer and more significant ways than ever before.

Some of us represent a college generation in which the prevailing philosophy was: Get your training while you are young and relatively unencumbered; postpone family, community and vocational responsibilities to a later date. Students today obviously live under a different set of customs and principles.

Fully one third of our Jacksonville University students, even in the daytime sessions, are married or have home responsibilities. As many as 90 per cent have heavy vocational tasks, some even trying to work virtually full time while attempting a full-time college load. In the Evening College, with an enrolment now ranging from 750 to 900, about 80 per cent are married. Virtually all of these students have some sort of family and vocational or community responsibility—some of them all three.

I want to state a tentative conclusion at the start: after written and oral surveys and investigations, and from questionings at conferences and classes and in other groups, I find no clear, sharp correlation between effectiveness in college work and the marital status. Having indicated this, I must say, however, that there are plenty of data—including many significant case studies—which clearly indicate a strong interaction between a student's home status and his college program.

In our evening college, for example, during a single semester there will be an average of about fifty students who will start a program of one or two evening courses and be forced to withdraw (or be asked to withdraw on account of absences or scholastic failure) because of problems arising from their family responsibilities. Thus the program is interrupted, often just at the point where the greatest damage will result.

It is not hard to list some major factors favoring the marriage of students before or during their college training and others clearly working against the best results.

The married college student is not necessarily either better or worse than his similarly situated single companion. If he is

naturally a good student and has a reasonably favorable situation, he will probably do well. Some who are not too good as students may be motivated to do work better than could normally be expected of them.

All of us in teaching and administration can point to such favorable arguments as the introduction of greater maturity of thought, added experience, increased constructiveness in motivation, a sense of responsibility, diligence at work, stability, facility in relating what is learned to life and especially to the local situation.

Against all this one must list the following, among other points: preoccupation with family, marital and personal affairs; concern over money (not unknown of course among single students); increased community interest and responsibility; frequent loss through emergencies due to illness, accident and much more; duties such as may be involved with trips for vacations, shopping and the like. The list could be very greatly prolonged.

The married student often gets himself into serious difficulties for various reasons. He may fail, for example, to clarify or rectify his family, vocational or social situation (or even his status with military units such as the reserve), before starting a college course. Then he runs into difficulties and tends to expect the college to bend its rules and make exceptions for him. He may have to be away on business or take care of a sick family member—and he tries desperately to save his semester's work. In many cases there are family dependents (sometimes elderly relatives), or there are financial or vocational limitations which make it unlikely that the student can follow a semester's program without serious interference.

Married students may be neglectful in the areas of tardiness and attendance, and they can also be a serious problem as they seek privileges in delaying reports, and so on.

Dormitory colleges are affected by the need for much more housing for married students. But non-dormitory institutions must also face financial issues such as need for loans and scholarships, provision for extra meetings for various interests of married students, and particularly a transportation problem. The latter becomes acute because to secure suitable residences many students must live at a distance or in areas not readily accessible or they must live with relatives.

The students, of course, are partly the products of an era in which early marriage has become the general fashion. It is simply understood that one marries and then works out any embarrassing economic or social complications later. Possibly this is due in part to delayed reactions from war deprivations and delays. It is likely, however, that it is due more to the sex-preoccupations of our time, stimulated so much by current TV and movie productions, periodicals and the like.

Our students are also the social products of an age which expects more outright help from the government and from a variety of social, educational and religious agencies. They feel safer than ever in going ahead to do whatever nature dictates, feeling confident that somewhere, somehow, the answer to their needs will come.

An editorial appearing in *The Christian Century*, in its issue of 23 April 1958, attacked the current trend of early and often irresponsible marriage on the part of pre-ministerial and theological students in seminaries and similar institutions. It pointed out the burdens imposed upon educational institutions, family and philanthropic agencies, as well as churches, by the necessity to support the wives and often several children of candidates for the ministry. Such candidates, it added, often become taut, ultra-practical, preoccupied with domestic matters, when they should be concentrating upon their vocational preparation. Again, the editorial pointed out their need for being rooted in the social and economic and political situation as it is—and probably the theological and religious situation as it is. It cites the development of committed, domesticated thinking, hopelessly linked with the status quo.

There is much in this indictment that applies generally. Students on the whole can still give more time and thought to their work (including graduate work) if they are not cumbered with family responsibilities.

The same kind of evidence has come to light in connection with aid to students who are war veterans and who apply for Government funds under Public Law 550 or a similar provision. This legislation has done great good, making education available to thousands of qualified, serious, earnest young men and women, many of them married. It is, however, news to no one that others enrol in colleges largely to collect these funds and have no real

interest in getting an education. They are intensely practical in their approach to courses, and string them out so long, in evening work, that some of their value is lost. Then too the requirement for seven semester hours moves them to insist on taking some courses rather than others, in order to collect the maximum.

While I do not have any clear-cut statistics to prove the allegation, I think the introduction of so many married students into both day and night classes has injected an element of superpracticality that can be harmful. There is little proper evaluation on the part of many of purely cultural and scholastic values. They look upon everything largely with the eyes of those affecting its relevance to their own local and temporary situation. There is also a discordant element sometimes between them and the single students because of their different evaluation of much material and their different social reference.

In such ways do college training and marriage and family life make their impact upon one another. It is difficult to keep a college curriculum from being abnormally and unhealthily affected by the marital status of the students.

The student, therefore, should prepare himself in health, family conditions and vocational commitments to carry the load he signs up for. College counseling too must be fully competent to deal with all aspects of this problem.

In the second place, the married student ought to choose a program that takes into account his situation in life and ways in which his status may be used as an asset.

In our own program we try to provide each semester, near registration time, a series of programs for orientation, supper or luncheon conferences with parents, wives (or husbands) and employers, so that the student is aided in correlating his study with his life situation and is helped to gain the understanding cooperation of his family and employer in particular.

These random thoughts, inspired by my current experiences and duties, move me to suggest the immediate need, on a national scale, of competent studies to isolate some of the factors involved in the total relation of marriage to academic education. I think that much can be learned that will be of help in improving techniques associated with the learning process and in shaping curricular content, hours of study, field work and the like.

EUROPEAN EDUCATION—DOES IT PROVIDE A CHALLENGE?

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THOSE who live under "... the self-satisfied complacency that everything we do in the United States is better"¹ are skeptical as to whether or not our educational system is really weak. However, the Russian launching of the sputniks ahead of our space-ships tends to indicate that in certain areas we are not as strong as we would like to believe. As a direct result of the sputniks, a re-evaluation of the American educational system is under way. But, in this "educational hysteria,"² we have to guard our objectivity. It should not be overlooked that to succeed in the space-race Russia imported scientists from all over Europe, especially from Germany, Austria and Hungary. Soviet accomplishments can at best, therefore, be attributed to the excellence of European education, not Russian schooling alone. (Paradoxically enough, a great many top-notch American scientists working on significant national and international projects are also European-educated.) In view of this fact, we should restate the problem and endeavor to discover what makes *European* education excellent enough to turn out scholars of distinction despite a lower standard of living and inadequate economic opportunities.

While we complain about the inadequacy of our schools (always a difficult problem to solve) we fail to create that inexpensive but essential intellectual-social atmosphere which is conducive to scientific and professional development. Instead of worrying about how the team makes out without a new field house or whether or not it is worth while (financially speaking) to earn academic degrees, our concern should be whether or not our educational standards are high enough to meet tomorrow's challenge. Instead of pressuring administrators of schools to admit students of questionable ability on the excuse that it is expedient to raise the nation's over-all educational level (and

¹ *Factory*, "Hysteria Over Educational Standards," Vol. 116, No. 2, February 1958

² *Ibid.*

thereby fostering educational mediocrity), we should assist schools to maintain high academic standards. Apparently it is not realized that not solely physical facilities and an unused library make up a school, but along with them the high intellect of its teaching staff and the inspiration transmitted by both faculty and administration for further intellectual development. Hence the intellectual spirit, the cultural milieu, in which learning takes place, that makes education a challenge. In this environment, competition to be better than others becomes the motivating force. This "spirit" characterizes European schools: antiquated buildings provide only the background.

The European undergraduate (a student of Gymnasium, Collegium, Real-Gymnasium, Lyceum etc.) is taught how to study and is educated in the *liberal arts and sciences* in the truest sense of the words. In the graduate school (i.e., university³) the student receives inspiration as well as instruction. Besides that, he is fully on his own in pursuing his professional or intellectual endeavors. Contrary to common American belief, coercion (i.e., a standardized curriculum) is the exception in European graduate schools. In fact, freedom often goes so far that students work out their own curriculum. On the undergraduate level (Gymnasium, Collegium) the student's choice is very limited. He is forced by a stiff and standardized curriculum to take predetermined courses regardless of his likes or dislikes in subject matter. The European student has to rely on the wisdom of those who determine the "desirable" curriculum for him. "For us who have lived in a state where the individual and his aspirations have been predominant in directing the course of education, it is difficult to comprehend the atmosphere of such a system."⁴

To call educational processes as heterogeneous as those to be found in Europe "the European system" is dangerous, but the similarity of academic requirements entitles us within limits to speak of those processes collectively. While Continental Europe follows a more or less uniform pattern, the British system is

³ A continental European university is exclusively a graduate school offering only professional, master's and doctor's degrees.

⁴ "Engineering Training in Russia," M. H. Trytten in the book "Engineering Enrollment in the U. S." by Norman H. Boris, New York University Press, 1957, p. 214.

closer to the American pattern. Though different in form, however, British schools maintain as high standards as those of Continental Europe.

In order to gain proper understanding of the European system, it is essential to think of the American high school and college as a single unit of education. We should do this because the Europeans combine both high school and collegiate education in the "Gymnasium." The Gymnasium or its equivalent, offers a carefully developed liberal arts and sciences curriculum (no singing, dancing, trade subjects or driving lessons) which is divided into *eight* years. An American graduate of a liberal arts college (under proper guidance and a well designed core curriculum) receives approximately the same kind of education during a period of *twelve* years.

Essentially, the grade school system is different in Europe. Bright pupils who can satisfy the entrance requirements of a Gymnasium are automatically allowed to jump four years in grade school. In the United States this would hardly be possible.

Unfortunately it is difficult to measure quality as far as education is concerned. Thus it is customary to measure the value of education by *years spent in school*. While it is true that several years are necessary to gain a certain amount of knowledge and sophistication, it is often forgotten that intensity of education can provide more thorough knowledge and accelerate more rapidly the development of mental skill than can mere marking of time. While from the point of view of years the European student receives four years less of grade school education, by the time he reaches the age of eighteen he has received a well-rounded liberal arts and sciences education in which repetition has been kept to a minimum. Thus, a *baccalaureate* from an European Gymnasium implies a liberal education.

Professional education in such fields as engineering, pharmacy, business, economics (at the undergraduate level), however, is considerably better here than in Europe. American educators have learned to compromise so well that they provide students with sufficient liberal education to enjoy life and to understand the world in which they live and at the same time give them some degree of professional competence. Similar

competence is not acquired by European students who leave colleges of technology (not to be confused with institutes of technology, which are graduate schools) or commerce. On the other hand, a degree holder of a technical college is well versed still in arts and sciences.

The American engineer—to mention one of the most important undergraduate professional degrees—is able to carry on professional work, while his European counterpart is nothing but a glorified draftsman. (However, he is not called “engineer”: this title is reserved for those who have master’s or doctor’s degrees in the field.) Since the European engineer who has been depicted in recent articles is not an *undergraduate engineer*, it is readily apparent why some observers erroneously believe that German or Russian engineers were better qualified than ours.⁵ The error lies primarily in the fact that the recipient of an American B.S. degree in engineering was compared with a German or Russian holding the M.S. degree in engineering. If one compares a German Diplom-Volkswirt (M.A. in economics), a Diplom-Kaufmann (M.B.A.) or a Diplom-Ingenieur (M.S. in Engineering) with American recipients of equivalent master’s degrees from reputable graduate schools, then the comparison will reveal little if any difference in knowledge.

Basically, Europe’s attitude is that professional education belongs to graduate schools. Europe shares this philosophy with some of our great universities such as Harvard, Chicago, Columbia and M.I.T. Generally speaking, in the U.S.A. it is readily recognized that professional education at the undergraduate level is merely an expedient to cope with the shortage of professionally trained men and women. A fast-growing economy needed professionals *fast* and the only practical solution was to integrate professional education with liberal education. While every educator knows that there is a better solution, our professional education at the undergraduate level is reasonably satisfactory. With a steadily growing number of graduate students enrolled in universities throughout the coun-

⁵ *Product Engineering*, “Why Can’t We Do It Too?” Feb. 1953; “How the Germans Develop Engineers,” July 1953; “Grade Schools and Leadership,” Dec. 1954. “Engineering Enrollment in the U. S.” by Norman Barish, editor.

try, we are making progress in this respect. The popular "executive training" programs appear to be another expedient to create a better trained executive group. Schools were unable to give all the professional competence which the men need to operate business enterprises efficiently. Especially those executives attend such programs whose liberal education permitted only a limited amount of professional training. These men can gain in such programs an added measure of professional competence and can acquire the newest management methods and techniques to keep in step with the dynamics of our economy.

European undergraduate students (Russian, French, German, Hungarian etc.) have very limited freedom of choice. They are compelled to take a set of predetermined courses. The curriculum is the same for all. This, however, cannot be called compulsion in the ordinary sense. Nobody is compelled to go to school beyond the statutory minimum leaving age, but when he decides to enter on an academic career, the student is compelled by virtue of stiff competition—and nothing else—to study hard and take certain courses. In the United States we have freedom of choice. The result is that students misuse this privilege; it becomes "free-loading" and a method of escaping those subjects which are considered difficult. In addition, we have to bear in mind that the European undergraduate is of high school age and, to guide him through a tough curriculum, some degree of coercion is absolutely necessary. Results could not be achieved without it. Furthermore, without standardization of the curriculum, the efficiency of the school system itself would be in jeopardy. In view of the notoriously limited financial resources available for educational purposes, European school administrators solved the problems raised by Dr. Van Houten,⁶ not by increasing school budgets, but by making the best possible use of classroom facilities as well as the available teaching staff.

The editorial in *Factory* which I have quoted states that we should not let today's hysteria lead us thoughtlessly to sacrifice the freedom of choice and free enterprise that basically constitute our greatest strength.⁷ Did, however, this freedom enjoyed

⁶ Van Houten, R. W.: "The Coming Tidal Wave of Students," *Product Engineering*, March 1958.

⁷ *Loc. cit.*

by our students lead us to greater heights? Apparently it only allowed Russia to catch up with and surpass us. Freedom is not at stake, the *misuse* of freedom is. A curtailment of freedom in our high schools and colleges would not, in my opinion, reduce the effectiveness of American education; it would only strengthen it. However, freedom of choice should be left alone in graduate schools. In the hands of those who know how to make use of it, it constitutes a great strength. Therefore the suggestion is made that "academic freedom in the form of selection of courses by the graduate student should not be barred, but it stands to reason that even in graduate schools some discretion should be left to the academic advisor to direct the interest of the prospective graduate student toward a standardized course of study which should be agreed upon by graduate schools. . . ."⁸

The purpose of education is a philosophical question. The answer depends on the aims, hopes and ideals of individuals. An attempt to answer this question might reveal whether or not academic education is a challenge or an opportunity for the average European.

Basically there is little difference between European students and ours. There is a difference, however, in maturity. The very fact that the European student may receive his baccalaureate degree at the age of eighteen implies a somewhat quicker and more intensive acquisition of knowledge. Then the tougher life, sharing the parent's worries, experiencing the after-effects of wars etc. makes the average European student quite serious as far as his school work is concerned. He goes to school to learn and to lay the foundations for an easier life than his parents had. He wants to learn how to escape their hardships by making better political, social and business decisions and by having greater wisdom. Most of our American students, especially those who escaped the depression of the thirties, have never experienced such hardship. Last but not least, the European is more class conscious than the American. Since the French revolution the principle of "égalité" made it possible to break into a new class, the intelligentsia. This class became

⁸ Rago, L. J., "The Function of Universities in the Professionalization of Management," *Collegiate News and Views*, Dec. 1956.

the most powerful and influential social group; more important than the nobility itself. Thus, the social goal is to become a part of that new class.

The social attitude has changed in the past century, so that many Europeans want to receive a degree for no other reason but that they want one. Thus education is for sake of education. Financial rewards (resulting from higher education) would ordinarily not warrant the extra effort expended. Among other things the European may want to go to school to be better than others, but especially he wants to become a part of the intelligentsia.

The educational system knows all these social idiosyncracies well and takes advantage of such social consciousness. Therefore the educational system makes it difficult to become a part of the academic fraternity. Social pressure, however, is so great that it apparently makes it worth while to strive for such distinction. European society conquered the class system, not by abolishing social classes, but by creating a new class and thereby diminishing the value of the aristocracy and the nobility. Out of this social struggle grew the educational system which proved the existence of "égalité," based on the framework of the educational system. European education is, therefore, in contrast to American education, a challenge, not an opportunity. Challenge may be compatible with coercion, by virtue of the fact that one may accept coercion on a purely voluntary basis.

Despite some degree of coercion, then, education in Europe is free, in the sense that it is open to all who can qualify, not only those who can afford it. Nevertheless it has a price: the student has to work exceedingly hard. However, in most European countries, his work is rewarded by a scholarship system. The scholarship system grants, as a rule, free tuition for all those who maintain high grades, regardless of the financial status of their parents. It is a system which rewards performance while in school. In life, however, only in terms of social prestige. Education tends to provide little opportunity in the financial sense.

America can be thankful that the Soviets were first in reaching outer space, because only through this jolt has the general public come to realize how intimately our future as a nation (economy-

cally, socially, politically) is related to the educational system. It is not merely school buildings that we want, but educational institutions. American higher education finds itself indeed in a period "... that presents a challenge of imposing proportions. Although educators and administrators became aware of the increasing demand to be placed upon our educational system sometime ago, the resultant attention on education because of the recent sputnik hysteria has undoubtedly brought its case to more sympathetic ears than ever before in history."⁹

It is essential that public opinion about education undergo significant changes. Public policy favoring large-scale mediocrity should be abandoned. There is no need for doubling the physical facilities of universities to accommodate the flock of students just now reaching high school age, because by the simple expedient of raising college entrance requirements and educational standards in general, it will become possible to accomplish our educational aims without substantial additional financial investments. It is fallaciously believed that a lot of college graduates of mediocre calibre can add a correspondingly larger amount to the nation's scientific development than can a smaller but better trained group; or that mass education can improve the social welfare as well as raise the standard of living faster than selective education. Only an educational system which forces students through competition and coercion to win over others will assure our aim: the availability of better educated Americans.

* A statement of the President of Duquesne University in his yearly report to the Board of Trustees, 1956-1957.

THE LAW OF COPYRIGHT AND THE DOCTORAL DISSERTATION

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THE widespread and still growing practice of American graduate schools of requiring the microfilm reproduction of doctoral dissertations raises a series of new questions with which student, faculty and university must concern themselves. The most common means of reproduction is through University Microfilms, Inc. of Ann Arbor, Michigan, which manufactures a negative of the dissertation, distributes positive copies to participating universities on request and publishes the abstract of the dissertation in *Dissertation Abstracts*. The dissertation must now be viewed in something of a new light, since microfilm publication brings the doctoral candidate and his dissertation into immediate contact with copyright questions in a way that was unknown (or little acknowledged) in the days when dissertations were merely hidden in two bulky copies in the most inaccessible parts of university libraries. While the law has not changed, the importance of it for the graduate student has much increased.

The law of copyright is complex, and this article makes no pretense of affording legal advice upon it. The purpose of the present comments is merely to alert the graduate student and his advisers to some of the problems of copyright law and also to the possible advantages of protecting the dissertation by obtaining copyright protection for it.

In general the student will meet the copyright question in two ways: first, he may want to protect his own materials against use by others; second, he should guard against infringing a copyright belonging to other authors or owners of literary property. With the much wider availability of dissertations through the use of the microfilm technique, a more critical appraisal can be expected from outside the confines of the student's own university (which, by the way, raises a neat question concerning the quality of many dissertations), and a more searching inquiry may be inspired concerning the method and execution of research for the Ph.D.

Copyrighting a Dissertation

The protection of copyright is obtained by publication of the dissertation with notice of copyright. The notice may take several forms but the most common and adequate is simply the insertion of the legend "Copyright 1958 by John A. Doe." on the fly leaf of both the bound copy and the microfilm copy. It may also be desirable to add the phrase "all rights reserved," which affords protection against infringement in other countries, to the limited extent to which United States treaty relations with other countries provide for such protection.

No action beyond the insertion of the above legend is necessary to vest the owner with copyright, but the publication of the work with such a copyright notice may be followed by registration of the copyright with the U. S. Copyright Office. This is done by paying a small fee and depositing two complete copies of the work with the office of the Register of Copyrights, Library of Congress, Washington 25, D. C. The student should note that it is not necessary to make the deposit and pay the fee in order to secure copyright. But the deposit and fee must be made before any legal action may be taken to enforce the copyright.

Once any material is "published" it enters the public domain and may be freely used by anybody unless the copyright is reserved. It was never clear that the deposit of copies of the dissertation in a university library actually constituted such a "publication," but there seems little doubt that reproduction by microfilm does constitute publication. If therefore the author wishes to protect his right to the exclusive use of his own work, he should avail himself of the protection afforded by federal law. In nearly every instance it will be advantageous to reserve the copyright by insertion of the appropriate legend. Then, if the author ever hopes to publish the dissertation or any part of it through a commercial publisher, or in any way to earn a profit from its publication, he will be well advised to pay the fee and deposit the two copies with the Copyright Office in Washington. It is not necessary to do this, however, until the work is used commercially; when the fee is paid and the copies deposited, the author may sue for infringements occurring both before and after the deposit, provided copyright was reserved by legend at the time of the original "publication."

Once publication of the material has taken place, it may not subsequently be copyrighted: thus *if the dissertation is published by microfilm without reservation of copyright, the author may not subsequently copyright the dissertation or any part of it*, for the material has, by publication, entered the public domain and the author's right to its exclusive use has lapsed.

Using the Materials of Others

In general it should be said that the law of copyright does not protect ideas but only the concrete expression of ideas. Ideas themselves are available to anyone and their use entails no infringement of copyright. Copyright does however protect the author's expression of the ideas and only he may make copies of that expression and sell them. This means that the graduate student may use the ideas of others freely without fear of infringing copyright. He should be aware, of course, that the ethics of scholarship require that he always give proper credit to other persons whose ideas he uses.

In using the materials of others, the first point of concern is with what is called "common-law copyright." By this principle the owner of unpublished materials (letters, manuscripts, personal documents, etc.) retains a perpetual copyright to the use of such materials. The graduate student must take extreme care in using such documents even though they may be very old and the author long since dead. The literary estates of some authors are extremely active long after the author has passed from the scene, and it is often true that an owner is more jealous of his manuscript materials than of published works. It must be emphasized that no such unpublished material should ever be used without the consent of the author or the copyright owner, except within the limits of "fair use" described below. Access to the manuscript conveys no rights whatsoever. Here again, however, it is not the ideas but their expression that is protected.

If a published work contains the legend: "Copyright by so and so," the right to use the material is protected and the author retains the sole right to make copies of it. The copyright laws of the United States provide copyright protection for an initial period of 28 years after publication and provide also that the copyright may be renewed for another 28 years.

Thus, any materials published more than 56 years ago are available for free use and are not protected by copyright. If the copyright has expired, however, the graduate student will nonetheless be required by the ethics of scholarship to acknowledge the source of the materials he uses.

If the graduate student wishes to make use of material protected by a current copyright, he should seek the written permission of the copyright owner. This permission should be retained as legal proof of the authorization to use the material. Merely acknowledging the source or acknowledging that the material being used is copyrighted does not legitimize its use or protect the user against charges of infringement. As a practical matter, there is very little danger of copyright litigation arising from quotation if the dissertation is not published for profit. The copyright owner is not likely to bring suit when the damage is no more than nominal. Moreover, the use of copyrighted materials in a dissertation ordinarily interferes very little with the commercial exploitation of the copyrighted work, and it is probable that most copyright owners will grant permission to use reasonable amounts of their material without charge. But the student who intends to publish commercially all or part of his dissertation is in a somewhat different position and would be well advised to procure written permission from the copyright owners of any material from which he quotes extensively.

It is not possible for the United States Copyright Office to answer detailed questions about owners of copyright or permissions to reprint. The graduate student seeking such permission should approach the author or the publisher.

"Fair Use" of Copyright Materials

The right granted to the copyright owner by the laws of copyright is subject to the right of "fair use" of that material by others. This means that direct quotation or paraphrase of the copyrighted material may be made within this privilege without infringing the copyright. But exactly what constitutes "fair use" is not clear and no generalization will cover all possible instances. Commentary upon or criticism of the copyrighted materials which involves quotation or paraphrasing is

usually permissible. No mechanical rule however can be safely stated for determining the quantity that may be used within this privilege of fair use. There is an old formula, frequently quoted and misquoted, to the effect that a specific number of lines of poetry or prose may be cited without infringing the author's copyright. There is no legal basis for any such rule. Indeed there is no simple rule that can be applied generally to every kind of work. The effective test seems to be whether the use made will materially reduce the demand for copies of the original copyrighted work. For example, it is quite unsafe to quote even a short passage from the copyrighted lyric of a popular song. On the other hand, in the verbal disciplines (history, social science, literary criticism) direct quotation for scholarly purposes of paragraphs of reasonable length is usually permitted both by the scholarly ethics of the discipline and by the copyright laws. Scientific dissertations present a special problem in the reproduction or quotation of formulas, drawings and other technical materials. In all such cases it is much better to get permission from the copyright owner than to assume that the ethics of the world of scholarship permit the free use of such materials. Scholarly ethics and the law of copyright are different things and, while they may be more nearly the same in the scientific than in the verbal disciplines, nevertheless what one permits the other may forbid. The important thing is for scholars to recognize that they too are *sub lege*.

It is worth repeating that copyright law protects not the ideas but the form of their expression. The graduate student may, without hesitation, publish his own product no matter how nearly it coincides with the thought of others. Since much scholarly work however involves lengthy excerpts and quotations from other works, the graduate student must bear the copyright question constantly in mind. It should be noted too that the fair-use doctrine applies to common-law copyright of unpublished materials as well as to published material protected by statutory copyright. But it is not always clear what constitutes fair use of such materials; the limitations and privileges of the doctrine have never been clearly defined and the author should be extremely careful in relying upon it to justify his use of another's work.

Express License to Quote

There is one other circumstance concerning quotation from copyrighted material that should be noted. The quoted volume may include a legend on the fly leaf stating something to the effect that brief quotation may be made from the work for scholarly or review purposes. This express license does expand the privilege of using the copyright material but it should be relied upon only where the language of the license is clearly broad enough to include use in a doctoral dissertation. It would seem ordinarily not to be of much assistance to the graduate student.

It is clear however that in any case these legends cannot have the effect of *narrowing* the use that may be made of copyright material under the doctrine of fair use. The law grants that privilege and the copyright owner is powerless to take it away.

Summary

In general it may be said that the graduate student should be concerned to assure himself of the protection of copyright in his own work and that he must be careful not to infringe the copyright of others. It must be emphasized that these brief comments are not intended to supply legal advice on so complex a matter as that of copyright law: their point is that the graduate student should be aware of the problems he confronts with respect to copyright and should be prepared to secure counsel when necessary. It is far safer when a problem arises to obtain precise information than to rely upon broad generalizations that may not be applicable to one's own case. The simplest rule for the graduate student to follow is that, if the dissertation is to be microfilmed and distributed, it should be written with the same care as a book to be published commercially. Any other assumption is likely to cause the writer of the dissertation, and perhaps his advisers as well, both inconvenience and embarrassment.

AN IDYLL OF THE MARKET PLACE

THERSITES

OCTOBER is the dreariest month. It is the time when laymen ask in petulant print what's wrong with our schools, and when educators tell each other (usually by reprinting commencement addresses) what's right about themselves. I have just had a severe case of *mal d'octobre*. Three exposures to the disease can be singled out as typical of its morbidity.

Here is John Sloan Dickey of Dartmouth speaking kindly of the Ivy Leaguer's wife and even expressing a kind of faith in her—and him. There is Royce S. Pitkin of Goddard complaining that our college students lack maturity and what are we going to do about it. Now it is Daniel Seligman, in and of *Fortune*, badgering me about the inefficiency of the education industry and its failure to use more machines.

The trouble is not that these gentlemen are wrong: it is that they are only half right. They all—and I'm making them speak for their tribes—either wander off into irrelevancies or are unable to locate and grapple with the important facts.

This is not surprising. For although each of them is in his own way a visionary, his vision is something less than 20/20. Mr. Dickey is speaking out of that gentle haze of humanism which imparts such a distinctive flavor to the Ivy League and is often mistaken for burning leaves. Mr. Pitkin is really looking back in Dewey-eyed nostalgia on battles fought long ago. *Fortune* has ever been dazzled by gadgets since it discovered that Charles Sheeler could paint illustrations with an airbrush.

Each of them wants me to ask a question, and it's the wrong question. The pertinent question to ask about a college graduate is not: "Is he rooted in the stream of Western culture like a water hyacinth in the Mekong?" It is not: "Has he matured like a prime Brie?" It is not: "Are his reactions as prompt and exact as an analogue computer's?" No, the answer to education's problem will not be found in mankind, maturity or machinery. It is found in the market place. The right question to ask about a college graduate is this: "Is he an aggressive consumer?"

A few facts show that this is the fundamental problem that higher education must face and solve. The amount of energy available to Americans is increasing more rapidly than the number of Americans who can avail themselves of it. When the curves of horsepower output and of population growth are plotted with reference to a time scale, it is immediately apparent that they are parting from each other at about the same speed that galaxies are. The divergence has become so wide that from time to time desperate measures are taken to narrow it artificially. Neither of the two most popular measures—recession and war—works very well.

The trouble with a recession is that it is only a temporary solution of the problem. After the shutdown of blast furnaces and cutoff of electricity for nonpayment, the whole unpleasant process begins again, because there is always an immediate and consequent decline in marriage and birth rates.

War fails as a solution because, sooner or later, the hot heads—those who want to win it—take charge. This necessarily involves restriction on, and even decimation of, the most aggressive group of consumers—those most able and ready to wear it out, break it down and drink it up.

The function of higher education, then, becomes clear. It is to produce dedicated and serious consumers who by a diligent effort to reproduce their kind and by a broadening and intensifying of their habits can convert the available energy, without loss of time, into waste products and scrap.

In the scientific sense, this means we must constantly keep before us the implication of the Iron Integral, as it is known in the more esoteric research areas: $\int \frac{\Delta Q}{t}$, where " ΔQ " represents the amount of credit in force at a sales counter at a given instant, and " t " represents the total amount of available energy in millifarads per second. This formula is derived from the interaction of Einstein's basic equation with a modification of Keynes' multiplier and the verified expense accounts on file with the Internal Revenue Service.

Here is the lesson which the three gentlemen adverted to—unfairly, I admit—must learn. The "stream of Western culture" school has got to grasp the fact that the economy has out-

stripped economics. We have passed in the last dozen years through four ages—Atomic, Nuclear, Space and The Common Man—and now stand on the brink (brink-standing is *de rigueur*) of the greatest and most exciting of all: The Age of the Consumer.

For the "I must make a decision that will look wise 1,000 years hence" school, wisdom will show that Conspicuous Consumption, which has been heretofore misunderstood as a satirical phrase, is really an exact, albeit intuitive, description of a necessary truth. Technically, this means a complete revision of credit control, with the Federal Reserve System oriented to market-placemanship.

The point about machines too becomes obvious. The point is not to use machines to become efficient: the point is to use machines and the attendant energies of the repair men.

Colleges must implant the Iron Integral firmly in the student's mind and be able to show, in a practical way, how it is derived. One easy way to do this is to use more machines themselves. It is important to note in this connection that the question of quality is irrelevant, for Smith's First Law will become operative: If you play with something long enough, it will break.¹

I think the point is clear. Progressive, front-thinking educators will grasp it and take steps.

But the traditionalist will surely raise the cry: "What about the pursuit of knowledge? What will happen to basic research?" To him I reply that the pursuit of knowledge is, as Shaw made clear, a passion, as real, basic and necessitous as any other passion. Put a crowd of students in a university dedicated to the art and science of consumption, and as many will wind up scholars as now do, and without the added encumbrance and expense of guidance, counseling, stimulation and motivational research. Love of learning is catching, like *mal d'octobre*.

¹ George H. Smith was a young candidate for the Ph.D. at M.I.T. whose dogged pursuit of a significant contribution to knowledge among the impedimenta of the physics laboratory led him to the discovery of the law that bears his name.

THE WAKING NIGHTMARE: OR HOW DID I GET INTO THIS?

DOUGLAS M. KNIGHT

PRESIDENT, LAWRENCE COLLEGE

THE college presidency has a quality that sets it apart from other positions of so-called executive responsibility. The college or university president must combine planning and execution as his counterparts in government and industry do not. You may say that such a supposed uniqueness is the mere result of poverty: if the college president could afford it he would have an administrative staff adequate to relieve him of the weird jumble of housekeeping and cosmic revision that seems to characterize his job. Only bad planning or a weak budget would allow the same person to be concerned with student tangles, the planning of the curriculum and the investment of the endowment or the letting of a building contract. I would like to agree, but then I think of two or three incidents, two or three crises of the last five years, from which I am forced to recognize that I could not have escaped no matter how many assistants had been hovering discreetly in the outer office.

In each case a rather complex community of relationships had been violated, and no one else could resolve the mélange of large issues and petty actions in which we were involved. (I am not sure that I always did.) A college or university exists to create effective people, not to manufacture an object; and as those people who are his responsibility war within themselves or with other groups, the president is involved no matter how big his staff or how remote his office.

I could put this basic problem of the college presidency another way by reminding you that active living communities of the kind we represent are increasingly rare in American life. The president has a major responsibility not only when his community gets off the track but equally when it is running smoothly. He must sustain and enrich a kind of organization that runs counter to many of the major premises of American

NOTE: Talk given at the closing session of the Institute for College and University Administrators, Harvard Graduate School of Business Administration, 25 June 1958.

life today. We are increasingly a society of individuals or families on the one hand and great masses on the other. In a good college or university, however, a much more complex idea of society exists than that which an exurbanite home life or a Madison Avenue career usually makes possible. Without the real presence of the president this community quickly loses its center, its gravitational pull.

Why cannot the faculty provide such a center? They are the center of the daily life of the place, certainly, while the president is off sitting in an airport. With all his travel, however, all his limitations of time and insight, he is the one person who gives his allegiance to the whole institution. He is committed to the *relationship* of all the varied enterprises that make up his community, and no other person in that community has them all equally at heart. Where the loyalty of each member of the faculty is primarily to a discipline, an area, the president's wakeful devotion is given to a place.

This would seem too obvious to mention if so many of the pressures upon us in these years did not lead in exactly the opposite direction—toward the president as financial officer, public relations expert, chrome-plated errand boy and hod carrier. It seems to me that there could be no more important reassertion for the American college presidency than that of the president's centrality to his institution—not his tyrannical dominance over it, but his place at the still point of the turning world (to use Mr. Eliot's phrase) rather than far out on the whirling periphery as he tends to be at the moment.

Of course that phrase of Eliot's is a tricky one; we do not doubt that the world of each of our institutions is whirling, but how can we guarantee or even dare hope for our own serenity within it? Oddly enough, only by mastering a role, an action, a concept of the college which will seem superficially the very opposite of serene or secure: a concept which will recognize that to be central is to be dramatically involved, in several senses of that overworked word.

When I say that the president's security and serenity can ultimately grow only from his central place in the drama which is his college, I mean by drama something that unfolds its nature above all in the dimension of time. A great book may take time to write, but it is not bound to time in the same sense

that the creation of a great college is. In the life of a college each person has his impact, each idea its consequence, each crisis its unfolding resolution. No issue can be put away on the shelf until next week, for it is alive; it is a function of the organic nature of the whole, a specific example of the fact that a living college is never an object but always an event.

Now where in this event, this living thing, this drama must the president stand? He has three kinds of relationship to it, I think: one official, one active, one philosophic. The many rituals he is called on to perform turn out to be a good deal more than the sustaining of the expected routine: they are the embodiment of the symbolic life of the place and they have great significance for its continuity, for that sense of itself without which an institution perishes. In this sense the president is not only in a dramatic situation: he is also responsible for creating a dramatic situation, over and over again. Without losing his nature or his integrity, he must still play a role; he must be at certain times both a person and an office.

Perhaps the most difficult thing to remember about this part of the job is simply that it has meaning—that even the freshman reception contributes to the college's existence, and that the greater dramas of matriculation day and commencement can be used effectively for the summoning up of all that is best and most permanent in the life of the place—all those qualities that the president sometimes feels he himself, like Moses, is denied access to.

But if this kind of formal dramatic order can be made important in the life of the college, it pales beside the dramatic action which is the daily and weekly life of the president. It is obvious that he deals with every conceivable kind of question during an average week: what may not be so obvious is that these questions are important, not just for themselves in isolation, but for their cumulative and interdependent quality—for the implicit motion in the decisions made by the president. The president stands at the center of this motion only if he understands it better than anyone else; and in this sense the special definition of his job, of his dramatic place in the college, is that he, more than anyone in the college, must protect his action with understanding.

As I think over the difficulties and mistakes of the last five

years, I feel that I was most seriously at fault whenever I could not see farther into the consequences of an action than my colleagues could. My responsibility was not only to what should be done but equally to why, and to the result of any given decision. No one else can be expected to take this position, and as a result no one else will be steadily in the unique spot of making and helping to make a host of immediate decisions but at the same time (and even more important) of watching the emerging pattern of decisions as they coalesce to form the life of the place. Chief actor, the president is also chief spectator; and on his power to see, to understand sensitively and profoundly, depends ultimately his power to act well in the future.

To say so much of the president's dual position is to introduce the final aspect of his job as drama. It is dramatic almost in an Aristotelian sense, because it constantly works with the ultimate and final but does so in the form and shape of the immediate and transient. This can happen with any aspect of the president's job—it can often take place without his knowing it—but over the years it is one of the realities he must recognize most sharply and reckon with most constantly.

Any college president can think of examples from his own work where the immediate and the final have met: what we need to understand is that no other job in education, only a few in industry and only a very few in government put this special burden and allow its special reward. Often the reward is terrifying; it is far easier to live with the difficulties of the world if one can avoid a sense of one's own direct involvement in them. But there is what I might call a fierce delight in having to live with many dimensions of reality. The board of trustees will rarely mention this as one of the major rewards of a college presidency, but I think it is one. To know that you are living with the full complexity of an event, rather than with some comfortable and arbitrary simplification of it, is a major step toward understanding this curious career. Even more important, it is a major step toward contentment in the job.

Such a view runs counter to much of the folklore. It is commonly said that the new president's intellectual and spiritual

life, like his moral backbone, go into a state of collapse from which they never recover. I admit that there are difficulties, times when one feels like a record-player rather than a person; but I suspect that these times and sensations occur for reasons which are the direct opposite of the ones usually suggested. The real problem for us in this calling is not that of being starved or denied: it is that of being over-fed with ideas, so that we become intellectual Strassburg geese, with enlarged livers to match our enlarged vocal cords. We are exposed to the beginnings of so many major ideas that the experience of our faculty friends is often barren by comparison; our problem comes in assimilation of these ideas, in mastery of them so that they have depth and coherence. We are committed by our jobs to a kind of intellectual eclecticism that we all learned in graduate school to regard as the unforgivable sin. We must realize, first, that to be intellectually alive in many different ways is a virtue not an evil; second, that to justify this life it must have some effective center, some order among its many disparate parts.

How can that order be achieved? How can those relationships be built up? I suggest an answer that may seem like a paradox: the intellectual order, the intellectual core of a college president's life comes above all from his personal power to interpret the responsibility he bears, his power to invest it with significance beyond the material significance of so many interviews, so many speeches, so many dollars. If he recognizes it, he will find that he is in daily association with the major ideas that his faculty colleagues must treat as academic subjects. His position is the inverse of the faculty position: where the intellectual construct dominates for a faculty member, it is the immediate, daily experience that dominates for the president. And where the faculty member's constant struggle to stay fully and completely alive is a struggle to engage immediate reality, the president's struggle must be one of engaging the constructs of reality—the major ideas that order events, the major traditions that underlie petty actions, the crucial historic past that stands behind the breathless moments of his life.

How can we achieve this sense of almost Olympian distance

from the very things we are constantly involved in? We can spend much less of our time on the usual debris that floats across our desks (which consists largely of the commentary of those who are too much like ourselves to be much help) and a good deal more of it in contact with the major minds and events of the world's culture. I learned much more about my job in the first year or two from Freeman's biography of Lee than from any study of college or university administration. In these wearier years, when the first excitement and the first shots of adrenalin have worn off, I am learning more about security in the midst of disorder from Heinrich Zimmer, the great historian of Indian philosophy, than I could hope to learn from any of the hundred commencement speeches I have seen in the last month—including of course my own.

In other words, the president must seize, as his right, upon the rare privilege of being an educated man. Then, so far as possible, he must use the privilege publicly in his writing and even perhaps in a certain amount of teaching. I shall seem at this point to be suggesting an impossible burden, but the president has an overview of any major discipline that no one else could provide; and the impact of having him directly concerned with the daily intellectual obligation of his community is great indeed.

Perhaps I am suggesting nothing less than this: the most unrelenting pressure on the college or university president, however he chooses to exemplify it, is the pressure to be wise. This pressure may manifest itself in a host of immediate ways—hiring, planning, speaking—but the common core of them all is not just competence but wisdom. And because this is so, the president has potentially a more profound obligation and a more constant relationship to the full intellectual life than anyone else in his institution.

Along with this demand goes the possibility of a neurosis: where wisdom is expected constantly, a sense of failure is almost inevitable. None of us can be as wise as the situation calls for, and when we are foolish we have no place to hide. I suspect however that this shock of constantly having to confront our own limitations is less productive of serious neurosis than two other aspects of our common life. One is the constant

institutional pressure, not just to be wise, but to be wise on insufficient evidence—to make decisions that Solomon would find painful, but without comfortably adequate information on which to base them. This is akin to the external pressure toward accomplishing everything busy, everything public, but away from accomplishing anything thoughtful and central. The result of these two pressures, taken together and sustained long enough, is a state of mind that I can only describe to you as suspicious exhaustion—where we know we have not enough energy left to fight back and yet are sure that there is some monster just around the corner that needs a fight. This is the peculiar battle fatigue of the college presidency, the state of mind and spirit that caused me to produce so dark a title for this talk.

But it is no more reflective of reality, of course, than a press agent's version of Brigitte Bardot's private life. Reality in this job lies neither in the glow of popular respectability on the one hand nor in the gloom of isolated doubt on the other. Instead the reality that keeps us going stands at the meeting point of two things: increasing diversity and richness of life for the institution, increasing maturity of insight for ourselves.

This may sound as though I had slipped into the wrong manuscript: the word "maturity" is the all too common fare of high school commencements. But it would not have to be if there were more of it alive in the country as a whole. Actually there are pitifully few careers, pitifully few ways of life that will almost guarantee you maturity if you survive them; the college president's happens to be one of these. All the specific rituals, functions, characteristics of the college presidency as I have described them have their real purpose, their real heart in the *simultaneous* growth of a college or university and of those of us who serve it in this unique way.

At this point the institution and the president meet; the reward for one is the reward for the other. This is so for many reasons—the least valid of them being a sense that the college is somehow an extension of the president's ego. The most valid reason for an identity between the two, as far as I am concerned, is the fact that the only assured pattern of growth for either of them rests on the same base and results from the same

play of opposed forces. Neither college nor president becomes a tyrant over the other, but each owes its life to a constant dialectic between the orthodox, the traditional, the established, on the one hand, and the rebellious, the untried, the revolutionary on the other.

This interaction is of course an aspect of that interplay between the learned life and the directly experienced life which I discussed earlier. It is certainly a part of the college's relationship to its community. It may even as a stimulating force have more to do with fund raising and the finding of adequate faculty than we would assume at first. After all, the most necessary and yet the most difficult appeal an institution can make is to those who have been concerned about it and with it for a long time, but who must learn that the only valid way to honor its past, its permanent virtues, is by helping it to grow toward purposes it has never yet achieved—perhaps has not dreamed it could achieve. A truly creative discontent with the present comes only from genuine knowledge about the past and genuine courage about the future.

I mention this interpretation of the life of the college, this constant sense of the orthodox and the revolutionary, because ultimately the great reward for the president (and the president's wife) lies in their kinship with it. To maintain this kinship is an appalling job, an impossible job; and after five years I would not give it up for any other career I know.

AMONG THE COLLEGES

ANDERSON COLLEGE has received from the widow of Professor Ruthven Holmes Byrum his private collection of books on art. This collection, considered one of the more valuable of private collections, contains 150 volumes, some of them rare and many over a century old.

ANTIOCH COLLEGE dedicated its second foreign center, Estudios Universitarios de Antioch College at Guanajuato, Mexico, last October. The Mexican center, deliberately established far from tourist trails and housed in a palace more than 150 years old, is the first permanent program of a United States college in Latin America. Antioch's overseas activities started last year with Antioch Education Abroad, a program of "study-work-living" in France, Austria, England, Scotland, Germany, Scandinavia, Switzerland and Israel. The Netherlands and Italy were added earlier this year. The Mexican program differs from the European program in that the study period is twelve weeks rather than a full academic year; a special Antioch center has been established; Antiochians usually return to this country for job periods.

BRANDEIS UNIVERSITY has established a new program in civil liberties and civil rights, the Florina Lasker Fellowships, endowed from the estate of Miss Florina Lasker. Six fellows will be chosen each year from among applicants who have had two years' experience in the fields of civil rights and civil liberties or are constantly engaged in these problems. This latter group might include state and municipal police officers, labor officials, group workers, clergy, educators, city planners and managers, journalists and so forth.

CARNEGIE INSTITUTE OF TECHNOLOGY has received a gift of \$2,800,000 from Mr. and Mrs. Roy A. Hunt for the construction of a new library. Mr. Hunt, chairman of the Executive Committee of the Aluminum Company of America, is senior board member of the Institute. A unique feature of the library will be a 10,000-square-foot penthouse to house the

rare book collection assembled by Mrs. Hunt throughout her lifetime, to be called the Rachel McMasters Miller Hunt Botanical Library. The collection contains 2,000 titles, including books of the 15th, 16th and 17th centuries. Under the terms of the gift, \$750,000 will be set aside as a permanent endowment fund to be used for new acquisitions and for operation and maintenance of the Botanical Library.

COLUMBIA UNIVERSITY started clearing a site last September for its \$17,000,000 East Campus development. An eight-story, \$7,000,000 School of Law will be the first unit to be erected.

HARVARD UNIVERSITY has established the Carl H. Pforzheimer University Professorship for the director of the university library. The professorship is named after a New York investment banker and bibliophile who was a Harvard graduate and is endowed by a gift from the Carl and Lily Pforzheimer Foundation, which maintains the famous Pforzheimer library in New York, representing one of the great achievements of collecting in this country. The first holder of the professorship will be the present library director, Paul H. Buck.

ILLINOIS INSTITUTE OF TECHNOLOGY has received from an alumnus, Philip D. Sang, vice president of the Goldenrod Icecream Company, his collection of documents written by famous inventors and scientists. The collection contains more than 120 original letters, articles and documents, including manuscripts by Henry Bessemer, Charles Blagden, Robert Bunsen, William Crookes, Marie and Pierre Curie, Charles Darwin, Thomas A. Edison, Thomas H. Huxley, Samuel F. B. Morse, Isaac Newton, Louis Pasteur and James Watt.

IONA COLLEGE started construction last October of a new million-dollar administration building to be named McSpedon Hall in tribute to the late Howard McSpedon, nationally known labor leader in the building and construction industry, who was active in the development program of Iona College at the time of his death about a year ago.

KNOX COLLEGE has received a grant of \$29,000 from the Fund for the Advancement of Education to support a two-year program of research that will implement the expansion of independent study on the Knox campus.

LIPSCOMB COLLEGE has received 1000 volumes from the personal library of an alumnus, B. C. Goodpasture, editor of the *Gospel Advocate* and one of the outstanding Bible scholars of our time. In addition, Mr. Goodpasture has given \$3,000 to equip and decorate the room set aside for this collection in the Crisman Memorial Library.

MICHIGAN STATE UNIVERSITY will operate jointly with the Television Corporation of Michigan the nation's first combined educational-commercial television station, which will begin broadcasting about the first of the year. The university station will offer Central Michigan viewers at regular and convenient times a wide range of educational programs, drawing on the resources of all the colleges, universities and public schools of the region.

NEWARK COLLEGE OF ENGINEERING has inaugurated an instructor training program which gives the student an opportunity of finding out before he finishes his formal training whether he is suited for a teaching career. The college selects potential faculty members from the senior class. These students are, on graduation, given free tuition toward earning their master's degree, the title of assistant instructor with the salary of that position and a limited teaching schedule in the day undergraduate division. A senior member of the department carefully instructs his new colleague in teaching methods, and during the summer months the new recruit is guaranteed employment in industry or at the college. During the four years since the inception of the plan the college has discovered an impressive number of prospective teachers.

NEW MEXICO HIGHLANDS UNIVERSITY recently dedicated a new 100-men dormitory costing \$200,000—the fifth it has built in the past six years. The new \$1,300,000

Science Building and the \$350,000 Arts Building are also now completed and in use.

NEW YORK UNIVERSITY has established a Center for International Affairs and Development to coordinate and expand various international study and service programs. The center will provide a means for making the university's total resources available for programs of teaching, research and services related to overseas activities. Its aim will be to increase the effectiveness of NYU's efforts in the field of international affairs and to extend those efforts in areas where the university can make significant contributions.

NORTHWESTERN UNIVERSITY will inaugurate next summer a five-week summer program designed to encourage outstanding high school students throughout the country to choose teaching as a profession. The program will become the fifth division of Northwestern's National High School Institute.

POMONA COLLEGE opened last September a new electronic language laboratory, named after the late Miss Margaret Husson, a former faculty member of the department of romance languages. It will provide mechanical tutors—inexhaustible and untiring—for 24 students at one time. Last October the Gladys K. Montgomery Art Center was dedicated, which more than doubles the amount of space available for the Art Department at Pomona. The permanent collection includes a Matisse painting, valued at \$50,000, and Renoir's "Andrea en Bleu." The building was named after Mrs. Victor Montgomery, mother of two Pomona alumni, who has been prominent in Southern California cultural and educational activities for many years.

RANDOLPH-MACON WOMAN'S COLLEGE has increased the enrolment in its elementary Russian language class by 333 per cent between 1956 and 1958. In 1956 there were nine students; this fall 39. Included under the heading of Russian Studies besides the language itself are Russian history and Russian literature in translation. Enrolment in the Russian literature class has increased by 240 per cent, and the over-all increase in enrolment in Russian Studies has been 160 per cent in the same period.

RIPON COLLEGE will offer its students in the coming summer a chance to study Renaissance culture in Europe under the guidance of a professor from Oxford University. The studies, to be completed in seven different European countries, will offer six hours of credit. The idea behind the seminar is that the art, architecture, music and literature of the Renaissance can be fully appreciated only in the context of the political, intellectual and economic developments which produced it. Students will sail for Europe the last week of June and return to the United States during the second week in September. A limited number of registrations are available for students from other colleges and universities, but Ripon students will have first preference for the 25 openings.

ST. JOHN'S UNIVERSITY, New York, is offering, in conjunction with the Metropolitan Educational Television Association, a television course in the Russian language, believed to be the first such course ever offered in the metropolitan area. St. John's will award two points of undergraduate credit per semester to students who satisfactorily complete the requirements for the course.

ST. MARY-OF-THE-WOODS COLLEGE has received a gift of \$1,500 from the O'Neill Brothers Foundation of Cleveland for a project in adult education, to be carried on by the art department, consisting of four workshops on art in today's world, open to the adults in the community and to the college students.

SARAH LAWRENCE COLLEGE will undertake a new educational plan based on its thirty years of experiment in individual education and designed to help meet the need for more room in the nation's colleges. The college will increase its enrolment from 400 to 550 students beginning in 1960. It will continue its individually-planned three-course program, tutorials and independent study without examinations or grades, and provide a curriculum in which ninety per cent of all classes will average ten in size. Twelve new courses of 35 to 40 students each, in which new techniques of individual instruction will be tested, are to be added to the sophomore and junior

years. Qualified seniors will work in graduate-style seminars, and a special graduate program leading to the Master of Arts degree will recruit a nationally-selected group of students who intend entering the field of college teaching. Under the college-teacher program, the junior and senior years and the post-graduate year will be integrated for selected juniors, with students assigned to a faculty member in their field of interest. As teaching interns, the graduate students will handle some classes, direct student conferences and otherwise assume teaching responsibilities while at the same time doing independent work in their field of study. For juniors selected to enter the program, the Bachelor of Arts and the Master of Arts degrees will be awarded for a three-year sequence of studies.

STANFORD UNIVERSITY Press has published a Portuguese-English dictionary, first of its kind in seventy years and the first to deal adequately with Brazilian Portuguese, which has many words and usages unknown to the mother country. The author, James L. Taylor, who was born in Brazil of American missionary parents, was an insurance agent by profession and is now lecturer in Hispanic American Studies at the university, spent fifteen years in the compilation of the dictionary. Stanford will work with the University of Tokyo under a grant to that University from the Ford Foundation, in an evaluation of the educational reforms launched in Japan since World War II, with emphasis on the American influence on Japanese education.

TEMPLE UNIVERSITY has received approval for a loan from the Federal Government for its third and largest redevelopment project, which will give the school a campus for the first time. In addition to the campus Temple will get a new business school, student union buildings and parking, office and classroom space.

TEXAS CHRISTIAN UNIVERSITY has been given the William Luther Lewis Collection of rare books and manuscripts by the Amon G. Carter Foundation of Fort Worth. The collection, on indefinite loan since 1955, is housed in a specially

constructed room in the new \$1,300,000 Burnett Library. Gathered over a thirty-year period by the late president of the Chicago Pneumatic Tool Company, the collection is made up of some 1500 items, many very rare. The most valuable single item is a "Pavier Shakespeare," printed in 1619, of which there are only two known copies in the world: the other in the Folger Shakespeare Library.

UNION COLLEGE, New York, has received a collection of papers of John Bigelow, who was prominent in the nineteenth century as a diplomat and author and who graduated from the college in 1835.

UNIVERSITY OF AKRON has produced a series of chemistry films to replace laboratory course work and save faculty time. Three years ago Dr. Thomas Sumner, head of the university's chemistry department, foresaw a serious shortage of faculty for laboratory classes by 1960, and searching for a way to meet the situation, especially in teaching chemistry to non-chemistry majors, he developed the film idea. When an extensive search of film libraries proved that no such films were available, it became necessary for the university to make its own. The Committee on More Effective Utilization of College Teaching Resources of the Fund for the Advancement of Education granted \$23,000 to develop the project, to which Akron added another \$3,700 from research funds.

UNIVERSITY OF BRIDGEPORT has conducted a one-year experimental study of part-time faculty which was financed with a \$19,000 grant from the Fund for the Advancement of Education. It was found that more extensive and effective use of part-time teachers offers a partial solution of the shortage of college teachers. The most fruitful sources of potential part-time teachers appeared to be, first, local business and industry; next, the professional colleagues of the full-time faculty; and third, graduate students. Although the supply of the full report *Part-Time Teachers as a Solution to the College Crisis* is exhausted, copies of a condensed version are available from Dr. D. B. Gowin, Assistant Professor of Education, College of Education, University of Bridgeport, Bridgeport, Connecticut.

UNIVERSITY OF CALIFORNIA has received a grant of \$550,000 from the Ford Foundation in support of a cooperative project between the university and the University of Indonesia for teacher training and economic research in Indonesia.

UNIVERSITY OF CINCINNATI has announced the formation of an Institute of Space Science to give advanced training and carry on research in the new field of astro-dynamics. Dr. Paul Herget, internationally known as director of the Cincinnati Observatory and scientist in charge of the Vanguard computing center in Washington, D. C., has been appointed director of the institute. Beginning in September 1959, the institute offers a three-year curriculum leading first to a master of science and then to the doctor of philosophy degree in dynamical astronomy.

UNIVERSITY OF MICHIGAN reports that the new undergraduate library has revolutionized student reading habits. During the first six months it was open, more than three quarters of a million persons passed through the doors. Total circulation of books—187,000 volumes—represents a fourfold turnover of the entire collection.

UNIVERSITY OF NORTH DAKOTA has been awarded \$250,000 by the National Science Foundation for support of a Science Institute. The institute will run a full academic year, from 7 September 1959 to 4 June 1960, and will provide instruction for about fifty high school science teachers. The grant will enable the university to give participating teachers stipends of \$3,000 plus allowances for dependents, board, tuition fees and books.

UNIVERSITY OF TEXAS has realized a twenty-year-old hope by purchasing the 40,000-volume, 8,000-manuscript Parsons Library of New Orleans, said to be among the three or four outstanding libraries in private hands. The library was built up over a period of sixty years by Edward Alexander Parsons, a New Orleans attorney, bibliophile and world-traveler of French-English extraction. Substantial contributions from Mr. and Mrs. St. John Garwood of Austin, Mr. and Mrs. Will

Clayton of Houston and the M. D. Anderson Foundation of Houston helped the university to make its purchase.

UNIVERSITY OF WISCONSIN dedicated this summer a new \$200,000 research observatory at Pine Bluff. The country station with its 36-inch reflecting telescope, located thirteen miles west of the Madison campus, constitutes the greatest single advance for Wisconsin astronomy since old Washburn Observatory on Observatory Hill, equipped with 15½-inch lens, opened its dome for observations in 1878.

WAYNE STATE UNIVERSITY is working on a method of translating Russian into English with an electronic "brain." Co-directors of the project, financed by the Office of Naval Research, are Dr. Harry Josselson, chairman of the Slavic Language Department, and Dr. Arvid Jacobson, director of the university's computation laboratory. They agree that development of a machine for translating languages will take a long time, but they do not doubt that a workable system will result.

WELLESLEY COLLEGE last October opened the Jewett Arts Center, consisting of the Mary Cooper Jewett Art Building and the Margaret Weyerhaeuser Jewett Music and Drama Building. The building is a gift from the Jewett family and was presented by Mrs. George Frederick Jewett of Spokane, Washington, graduate and trustee of Wellesley.

NEW COLLEGE PRESIDENTS

Arizona State College, Flagstaff, Arizona. J. Lawrence Walkup.
Concordia College, Portland, Oregon. Erhardt P. Weber.

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The Evansville College story is typical of the work done by the American City Bureau. Write for current examples of fund-raising programs for institutions similar to yours. Or, we shall be pleased to make a study of your problems and submit a plan of action without cost or obligation.

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